Documentation

OpenScape Alarm Response Professional
OScAR-Pro V3 R2 Classic Applications
OScAR-Pro Customized Operator

User Manual

A31003-S1730-U103-1-7619

Communication for the open minded

Siemens Enterprise Communications
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1 Conventions and Operating Instructions

Target audience and qualifications

The DCO-Designer V 1.02 User Manual is designed for all users and service providers involved in creating and editing customized interfaces for the OScAR-Pro-TT Operator-Tool.

To successfully carry out the operations treated in this document, you need to be familiar with Windows and you should know how to operate OScAR-Pro through the OScAR-Pro-TT Operator-Tool.

Contents

The chapter covers the following sections:

1.1 Reference manuals

1.2 Notations and symbols

1.3 Privacy and data security

1.1 Reference manuals

The *OScAR-Pro-TT User Manual OScAR-Pro Release 7, OScAR-Pro V3 R2* offers additional detailed information and tutorials that can be of valuable assistance for the operation of OScAR-Pro.

1.2 Notations and symbols

Conventions

The following definitions are used in this document:

`Text`	Both the texts from the files described in this manual and the entries made into them appear in the non-proportional **`Courier`** typeface.
The password **123456** ...	Details and instructions in the continuous text that are **of particular importance** or that **must be heeded** appear in bold print. **Buttons** are also in bold print.
The `global.cfg` file	`Files` and `directories` appear in the non-proportional typeface `Courier`.
*"*Name*"*	Field names, menu names and window descriptions are placed in quotation marks.
<Place holder>	Entries and outputs, both of which may vary depending on the individual situation, are placed in angle brackets and shown in italics.

Table 1-1 Notations

Symbols

The following symbols are used in the DCO-Designer User Manual:

Throughout this manual, the "i" is used to indicate useful information.

1.3 Privacy and data security

The system described in this manual may draw on and process both personal and corporate data.

In the Federal Republic of Germany, the processing and use of personal and corporate data is subject to a number of federal laws and regulations such as the Federal Data Protection Act (Bundesdatenschutzgesetzes, short BDSG). Please be careful to follow the laws and regulations for personal data protection that are currently in force in the country you work in.

The purpose of data protection is to protect the individual against any infringement of his personal rights through the misuse of personal data.

In addition, data privacy protection has the aim to protect the data itself from being misused during the different phases of processing and thereby ward off any infringement of external or internal interests in need of protection.

Please help protect data privacy and data security by being aware of these issues as you work:

- Make sure that only authorized persons have access to personal data.
- Make consistent use of every opportunity to assign passwords and do not grant unauthorized persons access to passwords, e.g. by writing them down.
- Make sure that no unauthorized persons can manipulate (e.g. save, modify, communicate, block, delete) or use personal data in any way whatsoever.
- Make sure that no unauthorized persons have access to data storage mediums, for example backup disks or printouts of protocols. This applies both to service work performed at your company and to the storage and transport of data mediums.
- Make sure that all data storage mediums that are no longer needed are completely destroyed. Also, always check that you do not leave behind any papers that could become openly accessible to others.

2 Overview

Overview

This chapter gives you a general overview of the product itself. It explains the philosophy that underlies the DCO-Designer and covers the different components that are needed for the full operation of the system.

Contents

The chapter covers the following areas:

2.1 Description of functions

2.2 Example application

2.3 Interactions of the DCO components

2.4 The tasks of the OScAR-Pro Customized Operator

2.5 The tasks of the DCO-Script

2.6 The tasks of the OScAR-Pro-TT Operator-Tool

2.1 Description of functions

The OScAR-Pro Customized Operator, short: DCO, enables you to tweak the operation and output of the OScAR-Pro-TT Operator-Tool to the individual needs and requirements of your business.

In the past, the corporate persons who operate the OScAR-Pro-TT Operator-Tool have often found the system's standard visual output too complex to respond quickly and efficiently enough in an emergency situation or crisis.
It is against this background that the demand was formulated to develop a user-friendly customized interface with a limited number of buttons and, if needed, underlying company and floor maps.

The solution is the OScAR-Pro Customized Operator, short DCO.
Even without any specific programming skills, any trained person can work with the OScAR-Pro Customized Operator to create an individual customized interface. These customized interfaces can be edited at any later point in time to make sure that changes or increased growing corporate needs and requirements are continuously met.

2.2 Example application

The below example is taken from a real-life application and demonstrates the user-friendliness of the DCO system.

In this example, the company styled 'EXP Chemical Industries Inc.' ("EXP" short for: Example), purchased a OScAR-Pro server for their in-house fire brigade at company site company site 'Yoursite' to help the firefighters respond to every imaginable emergency situation in the fastest and most efficient way possible.

EXP Chemical Industries is divided into a number of different business areas and every imaginable emergency scenario have been defined and grouped into corresponding alarm plans.

These alarm plans were then realized accordingly in OScAR-Pro:

- For each department, a broadcast group was created with subscribers was.
- For every imaginable emergency situation, a voice announcement was created and recorded.
- Also, an additional so-called ad-hoc or current voice announcement was created to for unforeseen emergency situations.

At this point the company-own fire-brigade requested that the different departments and announcements be output together so that they could be monitored in parallel. This aim was to make sure that alarms could be raised quickly via touchscreen with as few mouse clicks as possible.

The fire brigade's IT manager enrolled in a training course were he learned how to operate the OScAR-Pro Customized Operator and then realized the aforementioned corporate requirements as described below (see next page).

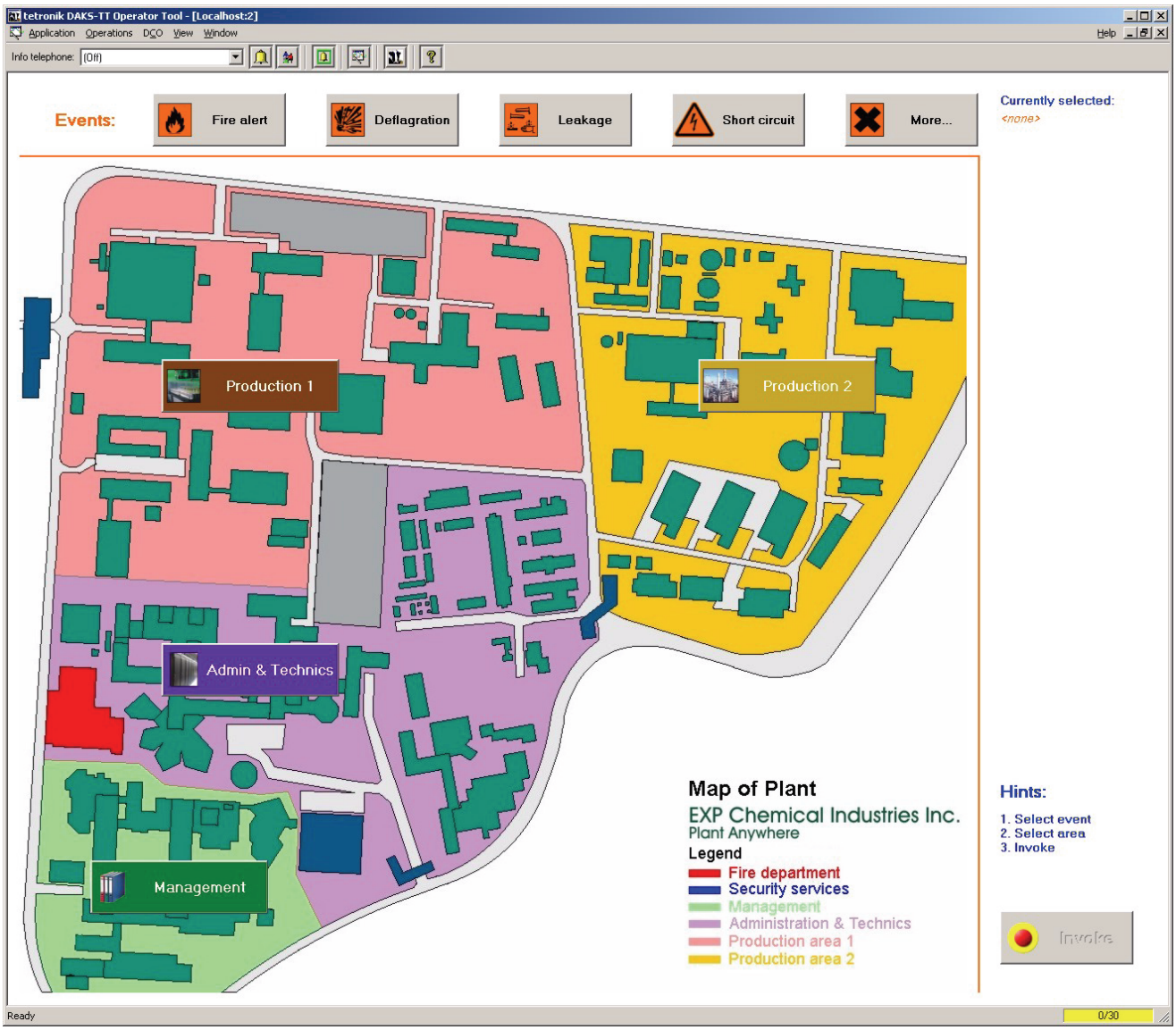


Image 2-1 Example of a DCO output in the OScAR-Pro-TT Operator-Tool

2.3 Interactions of the DCO components

The OScAR-Pro Customized Operator (DCO) is based on the interaction of the following components:

- OScAR-Pro Customized Operator: Editor used to create, edit and validate DCO- Scripts.
- DCO-Scripts: File with a corresponding directory and the figures that are needed to describe the customized interface.
- OScAR-Pro-TT Operator-Tool: Tool to output the customized interface and execute the OScAR-Pro commands used therein.

The below image illustrates graphically the interaction of the above components:

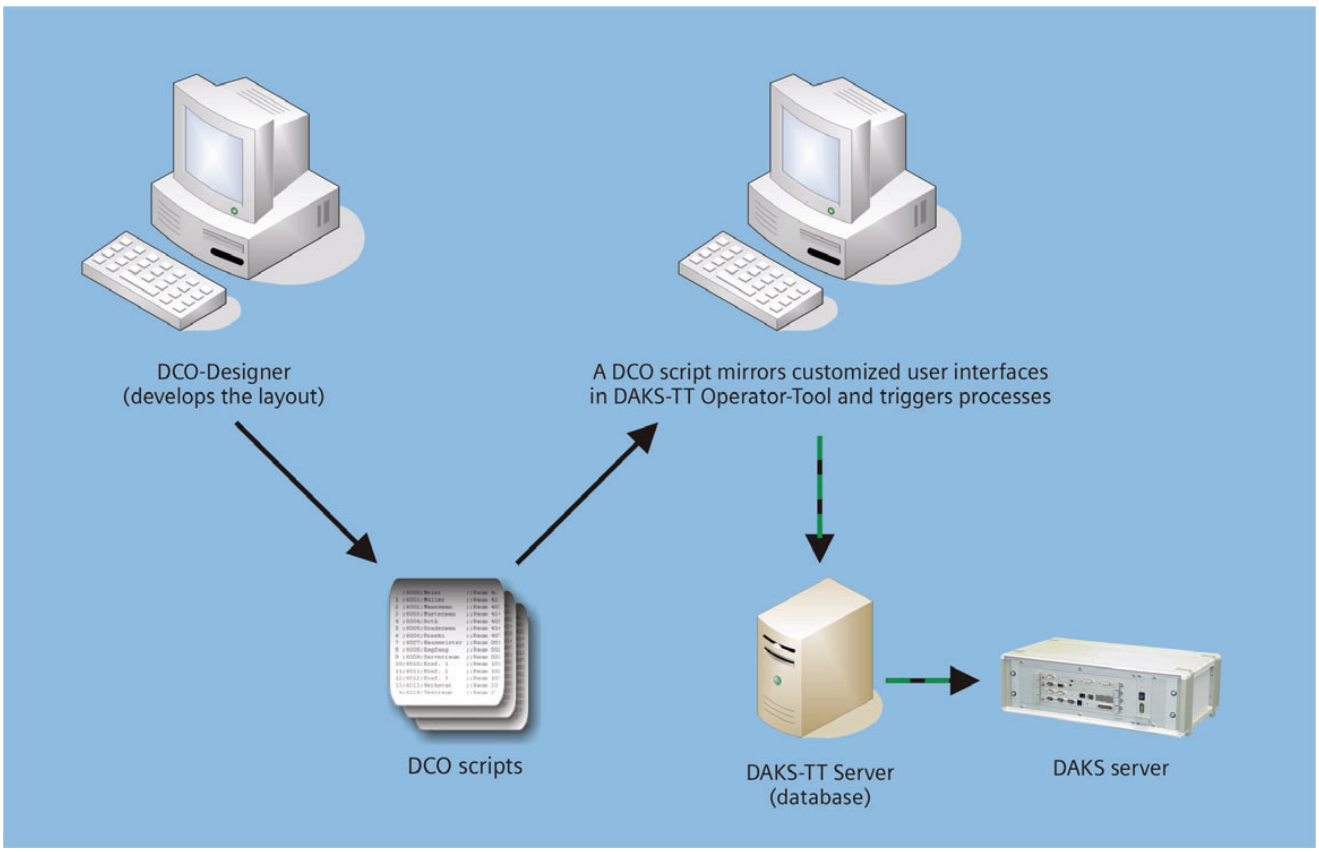


Image 2-2 Integration of the different DCO components in OScAR-Pro Classic

2.4 The tasks of the OScAR-Pro Customized Operator

The OScAR-Pro Customized Operator is an editor based at the same time on text and structure as well as on graphics to create the so-called DCO-Scripts and to package the images that are used therein.

Users principally need no specific programming skills to be able to create a customized interface, but it will surely be helpful if you are have a global understanding of variables, constants, functions and procedures, and filters.

The OScAR-Pro Customized Operator enables you to:

- create customized interfaces (also multi-level) and design their layout,
- adjust the properties of the objects used in these interfaces, for example their typeface or color,
- import images,
- create and use constants, variables, functions, and filters, and
- validate and simulate the obtained results.

2.5 The tasks of the DCO-Script

DCO-Scripts are created by the OScAR-Pro Customized Operator and can be edited through the system whenever necessary.

DCO-Scripts are comparable to small databases as they contain all the information that is needed by the OScAR-Pro-TT Operator-Tool to output the customized interface and execute its commands.

In addition, each DCO-Script has a sub-directory titled 'Images' where all the imported images are stored.

2.6 The tasks of the OScAR-Pro-TT Operator-Tool

The OScAR-Pro-TT Operator-Tool reads and interprets the DCO-Script and outputs the customized interface 1:1 like it was created and simulated in the OScAR-Pro Customized Operator.

In addition, the OScAR-Pro-TT Operator-Tool interprets the OScAR-Pro commands contained in the DCO-Script and transmits them to the OScAR-Pro server via the OScAR-Pro-TT Server application.

Every OScAR-Pro process triggered by a DCO-Script, for example a broadcast, is automatically output in the OScAR-Pro-TT Operator-Tool.

The DCO-Script can query at any time the events and results of a process and output both accordingly in the DCO interface.

3 Installation

Overview

This chapter shows you how to install and uninstall the OScAR-Pro Customized Operator.

Contents

The chapter covers the following areas:

3.1 How to install the OpenScape Alarm Response Professional

3.2 Uninstall the OpenScape Alarm Response Professional

3.1 How to install the OpenScape Alarm Response Professional

The entire OpenScape Alarm Response Professional can be installed in a single process.

Please bear in mind that under Windows 2000/XP, you must have the administrative rights to install OScAR-Pro Cus-tomized Operator (DCO)!

To install the software on your computer, the following requirements must be fulfilled:

- Microsoft Windows 2000 Professional or Windows XP (if necessary also Windows 2003 Server) must be installed on your PC.
- You need to be familiar with the Windows operating system and you must know how to install software.
- OScAR-Pro Release 7 or OScAR-Pro V3 R2, respectively, must be installed on your PC or in your network (for details please refer to the OScAR-Pro User Manual).
- OScAR-Pro-TT-Server has previously been connected at least once with the corresponding OScAR-Pro server (online).

Follow the system instructions output during the installation. Click **Back** if you want to return to the previous window, for example to make changes. If you want to end and not finish the installation, click **Cancel**.

No.	Task	Window
1.	Place the Installation CD in the CD-ROM drive. If the installation software fails to start automatically, please start the CD installation manually from the Windows interface by using the command "Run menu": To trigger this command you need to enter <*CD-Rom drive*>`:\cdsetup` e.g.: `d:\cdsetup` in the command line and confirm your entry with **OK**.	

Table 3-1 How to install the OScAR-Pro Customized Operator

No.	Task	Window
2.	Click the menu item "Install OpenScape Alarm Response ProfessionalV1...".	tetronik Setup tetronik GmbH Angewandte Elektronik und Nachrichtentechnik Aministrator and User manual - DAKS Customized Operator ... Download of the Adobe Acrobat Reader ... Install DAKS Customized Operator "DCO V1.00" tetronik GmbH AEN homepage Deutsche Version dieser Seite Close
3.	Select the language you want to use and confirm with **OK**.	Choose Setup Language Select the language for this installation from the choices below. English (United States) OK Cancel
4.	The installation is now initialized.	tetronik GmbH InstallShield Wizard DAKS Customized Operator Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait. Cancel

Table 3-1 How to install the OScAR-Pro Customized Operator

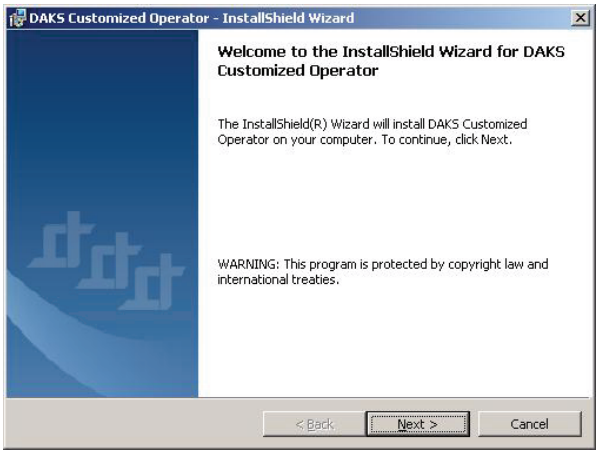
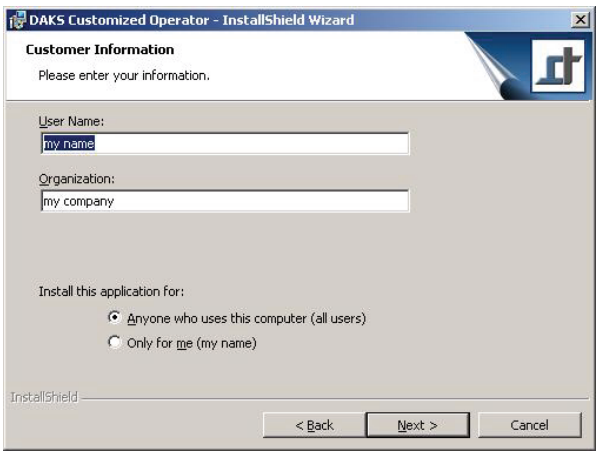
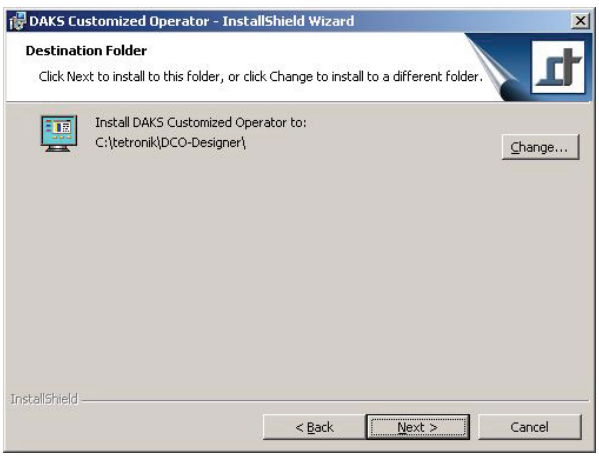
No.	Task	Window
5.	Click on **Next** to make all installation settings.	
6.	Enter the user name and the name of the organization or company. Specify if you want the software to be installed for all users of this computer or only for you. Now click **Next**.	
7.	To change the installation path, click **Path**... in the corresponding option and select the new path in the window that opens next. Now click **Next**.	

Table 3-1 How to install the OScAR-Pro Customized Operator

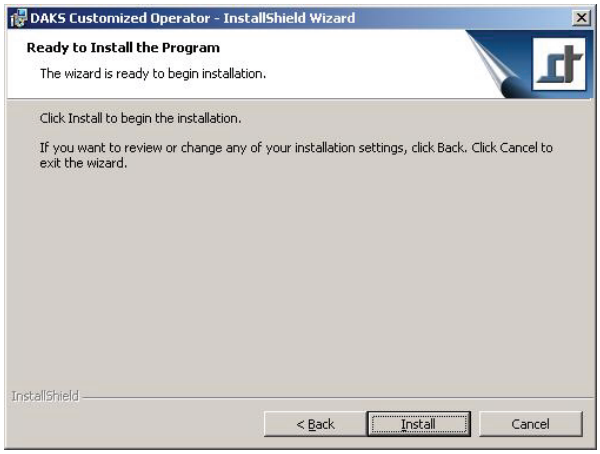
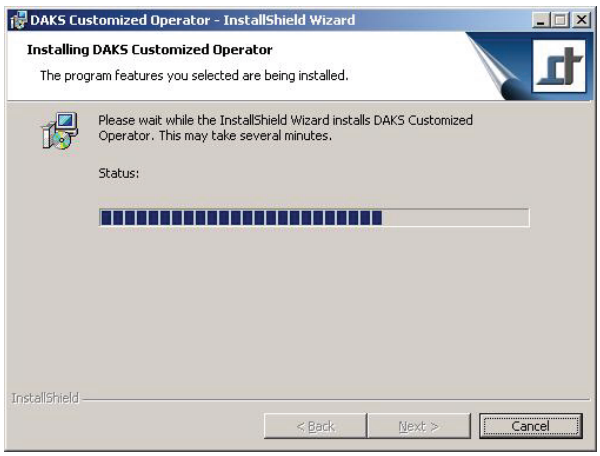
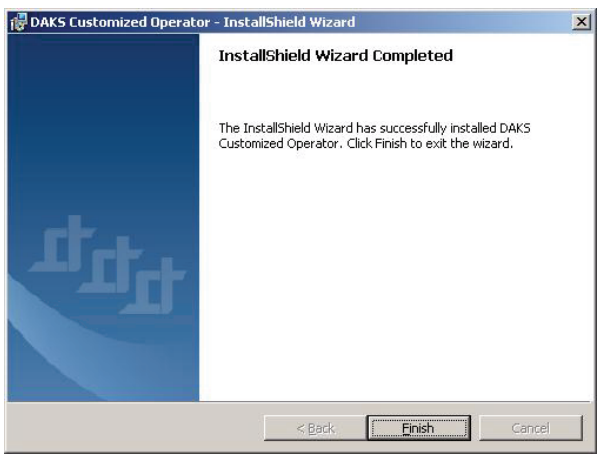
No.	Task	Window
8.	Click "Install" to install the OpenScape Alarm Response Professional on your PC. The software is now installed in the directory you selected. The progress of the installation is visualized with a blue progress bar. Now click **Install**.	
9.	The software is now installed in the selected directory.	
10.	Click **Finish** to complete the installation. After the installation is completed, the program symbol for the is listed in the Windows Program Manager, and there under the program group 'OpenScape Alarm Response Professionaltetronik OScAR-Pro-TT'.	

Table 3-1 How to install the OScAR-Pro Customized Operator

3.2 Uninstall the OpenScape Alarm Response Professional

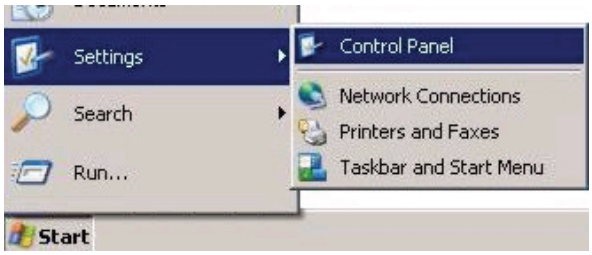
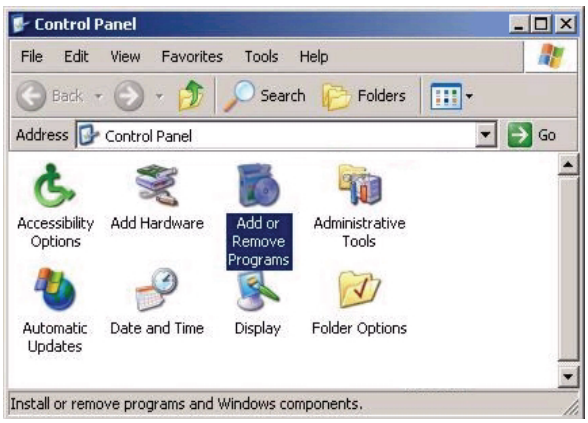
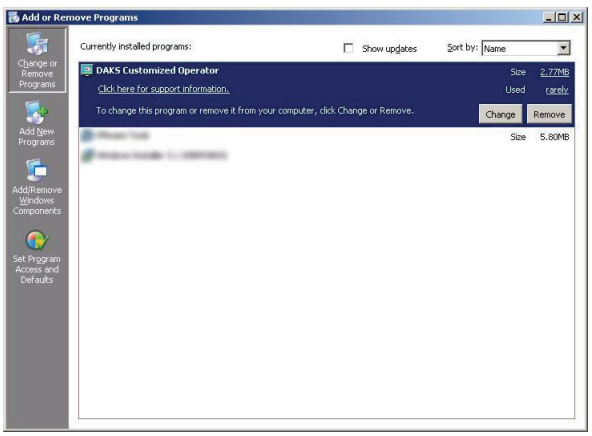
No.	Task	Window
1.	Open the Windows Control Panel.	
2.	Open "**Software**".	
3.	Select the entry 'OpenScape Alarm Response Professional ' and click **Delete**.	
4.	Confirm your entry with **Yes**. The uninstall process is started.	

Table 3-2 Uninstall the OScAR-Pro Customized Operator

No.	Task	Window
5.	The software is now uninstalled.	

Table 3-2 Uninstall the OScAR-Pro Customized Operator

4 Operating Instructions for the OScAR-Pro Customized Operator

Overview

This chapter gives you general operation instructions for the OScAR-Pro Customized Operator. It also covers the special functions of the system.

Contents

The chapter covers the following areas:

4.1 Start the OScAR-Pro Customized Operator

4.2 Layout of the interface of the OScAR-Pro Customized Operator

- 4.2.1 The menu bar
- 4.2.2 The toolbar
- 4.2.3 Description of the menu commands and the buttons of the OScAR-Pro Customized Operator
- 4.2.4 Functions of the mouse
- 4.2.5 The status bar

4.3 Setup and application of the Structure window

- 4.3.1 The tree structure of the Structure window
- 4.3.2 The list view of the Structure window

4.4 Setup and application of the Layout window

- 4.4.1 Toolbar and Controls
- 4.4.2 Mark a Frame area or a Control
- 4.4.3 Move Controls
- 4.4.4 Change the size of Frames and Controls
- 4.4.5 Align and space elements automatically

4.5 Setup and application of the Preview window

4.6 General user dialog windows

- 4.6.1 Edit project properties
- 4.6.2 Administration of the Image lists
- 4.6.3 Process colors and Standard colors for process lists
- 4.6.4 Edit fonts
- 4.6.5 Edit colors

4.1 Start the OScAR-Pro Customized Operator

Follow the below instructions to start the OScAR-Pro Customized Operator:

No.	Task
1.	Click and open the menu 'tetronik' listed under programs.
2.	Next, click the menu item 'OScAR-Pro Customized Operator'.
3.	This will open the main window of the OScAR-Pro Customized Operator.

Table 4-1 Start the OScAR-Pro Customized Operator

4.2 Layout of the interface of the OScAR-Pro Customized Operator

After you have started the OScAR-Pro Customized Operator and created a new or opened a previous project, the below window will pop up (here already with a finished interface).

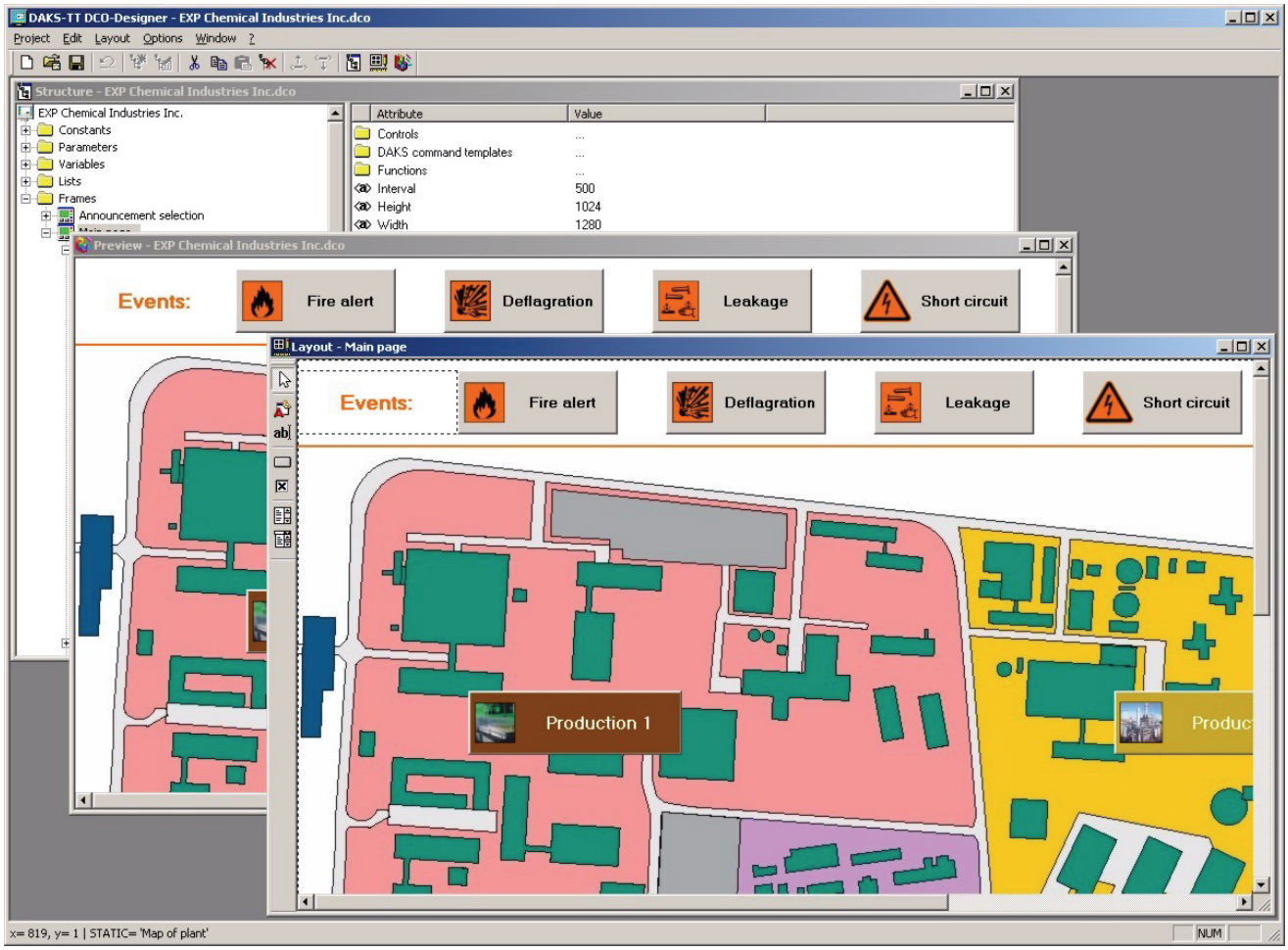


Image 4-1 Layout of the interface of the OScAR-Pro Customized Operator

Usually each project has exactly one DCO-Script file.

There are 3 different child windows to every project for the editing and testing, namely:

- The Structure window where the entire project data is output in a hierarchical structure. This window emulates the Microsoft Windows® Explorer user interface and enables you to edit all entries directly.
- The Layout window where you can edit both the Frames that are created in a project and all of its elements.
- The Preview window where you can validate the DCO-Script and check it for errors, but also carry out extensive testing of a created project.

4.2.1 The menu bar

The menu bar contains several pull-down menus that help you activate the diverse functions of the OScAR-Pro Customized Operator.

For a detailed description of the menus and menu items please refer to Section 4.2.3, "Description of the menu commands and the buttons of the OScAR-Pro Customized Operator".

If a menu command entails further user dialogs it has 3 dots after the name (e.g. "New...").

Certain menu commands can also be reached via keyboard shortcuts (e.g. 'Ctrl+N' to create a new project).

4.2.2 The toolbar

Use the buttons of the toolbar to activate the functions of the OScAR-Pro Customized Operator directly with a mouse click. The buttons represent functions that can also be reached with the corresponding menu items (Section 4.2.3, "Description of the menu commands and the buttons of the OScAR-Pro Customized Operator").

4.2.3 Description of the menu commands and the buttons of the OScAR-Pro Customized Operator

The below table itemizes and explains the menu commands of the OScAR-Pro Customized Operatorwith the equivalent keyboard shortcuts and button symbols.

The table is divided into:

- generic entries, i.e. entries that apply to each of the 3 child windows,
- special entries that only appear in the Structure window,
- special entries that only appear in the Layout window, and
- special entries that only appear in the Preview window.

Menu item	Description
Generic entries	
The pull down menu "*Project*":	
New.. CTRL+N 	Opens a window to create a new project (i.e. empty DCO-Script directory). If a project is already open at this time the system will, if necessary, query the user and close it.
Open... Ctrl + O 	Opens a window to open an already existing project (i.e. a DCO-Script file in a project directory). If a project is already open at this time, the system will, if necessary, query the user and close it.
Save Ctrl+S 	Saves a project after editing.
Save as...	Saves the DCO-Script of a project under a different name.
Close	Closes the project that is currently open.
Pop-up menu "Settings" *u*	
Properties...	Opens the window to define the properties of the project (see Section 4.6.1, "Edit project properties").
Image list .. F12	Opens the window to administrate the Project image list (see Section 4.6.2, "Administration of the Image lists").
End program Alt+F4	Ends the OScAR-Pro Customized Operator after the user confirms positive a security prompt.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	**Description**
The pull down menu "*Options*"	
Toolbar	Shows or hides the toolbar.
Status bar	Shows or hides the status bar.
Default colors...	Opens the window to edit the default color selection for new projects.
Pop-up menu "*Languages*" ▶	
German	Specifies that the DCO-Designer language is German.
English	Specifies that the DCO-Designer language is English.
Pull down menu "*Window*"	
Structure window `Ctrl+T` 	Opens the Structure window and/or brings it to the front.
Layout window `Ctrl+L` 	Opens the Layout window and/or brings it to the front. Please note that the Layout window can only open if you mark a child node under the node "Frame" in the Structure window.
Preview window `Ctrl+R` 	Opens the Preview window and/or brings it to the front. In this process, the current project is saved and validated after a security prompt.
Pull down menu "*?*"	
About tetronik DCO-Desig-ner.. `F1` 	Opens the about box with details on the OScAR-Pro Customized Operator.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	Description
Special entries of the Structure window	
Pull down menu "Edit"	
New `Ins` Make a doubleclick in an empty area of the list view. 	Creates a new element in the structure of the DCO-Script.
Edit `Alt+Enter` Doubleclick the cell you want to edit in the list field view 	Opens the selected parameter of a structure element for editing. These are usually input or selection fields that are output directly in the list view.
Undo `Alt+Z` 	Undoes the last action. Use this command to renter an entry that was deleted by mistake.
Cut `Ctrl+X` 	Cuts the marked entries and copies them to the Win-dows® Clipboard. Use *Paste* to insert entries from the clipboard, if needed at another place in the project.
Copy `Ctrl+C` 	Cuts the marked entries and copies them to the Win-dows® Clipboard. Use *Paste* to insert entries from the clipboard at another place in the project.
Paste `Ctrl+V` 	Pastes entries copied to the Windows® clipboard to the position of your project that was marked manually.
Delete `Ctrl+Del` 	Deletes the selected element from the structure of the DCO-Script.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	Description
Move up `Ctrl+Arrow up` 	Moves an entry up in the order of the list view.
Move down `Ctrl+Arrow down` 	Moves an entry down in the order of the list view.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	Description
Special entries in the Layout window	
Pull-down menu *"Edit"*	
Delete `Ctrl+Del` 	Deletes the selected element from the structure of the DCO-Script.
Pull-down menu "*Layout"*	
Pop-up menu "*Toolbar*" ▶	
Pointer `Ctrl+1` 	Selects the tool "Pointer". Use this tool to move graphical object to a new positions or change their size.
Static control `Ctrl+2` 	Selects the tool "Static control". Use this tool to place new static controls in the current frame, e.g. images or static texts.
Edit field `Ctrl+3` 	Selects the tool "Edit field". Use this tool to add new Edit fields to the current Frame.
Button `Ctrl+4` 	Selects the tool "Button". Use this tool to place new Buttons in the current Frame.
Checkbox `Ctrl+5` 	Selects the tool "Checkbox". Use this tool to place new Checkboxes onto the current Frame.
Listbox `Ctrl+6` 	Selects the tool "Listbox". Use this tool to place a new Listbox in the current Frame.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	**Description**
Combobox Ctrl+7 	Selects the tool "Combobox". Use this tool to place a new drop-down Combobox in the current Frame.
Pop-up menu "*Align*" ▶	
Left `Ctrl+Arrow left`	Left-aligns the selected objects with the main selected object.
Right `Ctrl+Arrow right`	Right-aligns the selected objects with the main selected object.
Top *Ctrl+Arrow up*	Aligns several selected objects with the upper border line of the main selected object.
Bottom *Ctrl+Arrow down*	Aligns the selected objects with the bottom border line of the main selected object.
Horiz. center `Ctrl+Z`	Centers the selected objects with the horizontal center line of the main selected object.
Vert. center `Ctrl+V`	Centers the selected objects with the vertical center line of the main selected object.
Pop-up menu "Space evenly" ▶	
Across `Alt+Arrow right`	Arranges all selected objects evenly and horizontally between the outer left and the outer right selected object.
Down `Alt+Arrow up`	Arranges all selected objects evenly between the highest and lowest selected object.
Pop-up menu "*Make same size*" ▶	
Width `Ctrl+B`	Matches the width of all selected objects to the width of the main selected object.
Height `Ctrl+H`	Matches the height of all selected objects to the height of the main selected object.
Both *Ctrl+G*	Matches the height and width of all selected objects to the height and width of the main selected object.
Pop-up menu "Frame size" *u*	
320 x 240 `Ctrl+F7`	Sets the size of the Frame to 320 x 240 pixels.
640 x 480 `Ctrl+F8`	Sets the size of the Frame to 640 x 480 pixels.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

Menu item	Description
800 x 600 `Ctrl+F9`	Sets the size of the Frame to 800 x 600 pixels.
1024 x 768 `Ctrl+F10`	Sets the size of the Frame to 1024 x 768 pixels.
1280 x 1024 `Ctrl+F10`	Sets the size of the Frame to 1280 x 1024 pixels.
User defined... `Ctrl+F12`	Opens a window to adjust the Frame size to your own demands.
Special entries of the Preview window	
The pull down menu "*Project*":	
Parameter editor `SHIFT+Ctrl+P`	Opens the editor to edit the parameters of the DCO-Script.

Table 4-2 Summary of the menu items and buttons of the OScAR-Pro Customized Operator

4.2.4 Functions of the mouse

The functions of the mouse are largely Windows®-compliant. However, the Structure and the Layout window of the OScAR-Pro Customized Operator offer some additional functions that are described below.

The left mouse key

- **Drag & Drop with the left mouse key**
  In the Structure window, the entries in the tree/list view can be moved and copied by "Dragging" them with the left mouse key. In this way you can, for example, move Controls in the Structure window to a new Frame or copy them by keeping the Ctrl key pressed at the same time.
  In the Layout window, you can duplicate Controls (see below) by keeping the Ctrl key pressed at the same time.

The right mouse key

- **Context menu**
  A right mouse key click opens the context menu for the window that is currently open. This usually enables you to quickly access the functions that can also be reached with the menu bar drop-down menus or buttons (e. g. "New", "Edit", "Copy" etc.). However, the context menu additionally offers functions that only make sense for the window that is currently open.
  The most important differences are:
  – "Move up" and "Move down" in the Structure window
  – "Tools", "Align", "Make same size" and "Space evenly" in the Layout window
  – "New", "Edit" etc. in the Structure- as well as in the Layout window
  The functions of the context menu entries are the same as the ones of the corresponding pop-up menu entries (Section 4.2.3, "Description of the menu commands and the buttons of the OScAR-Pro Customized Operator").

4.2.5 The status bar

The status bar is located at the lower end of the main window. It gives you additional information on the various menu commands and outputs status messages of the program.

4.3 Setup and application of the Structure window

The Structure window constitutes the main work station of the OScAR-Pro Customized Operator. It is this window that outputs the entire content of the DCO-Script in a hierarchical tree structure.

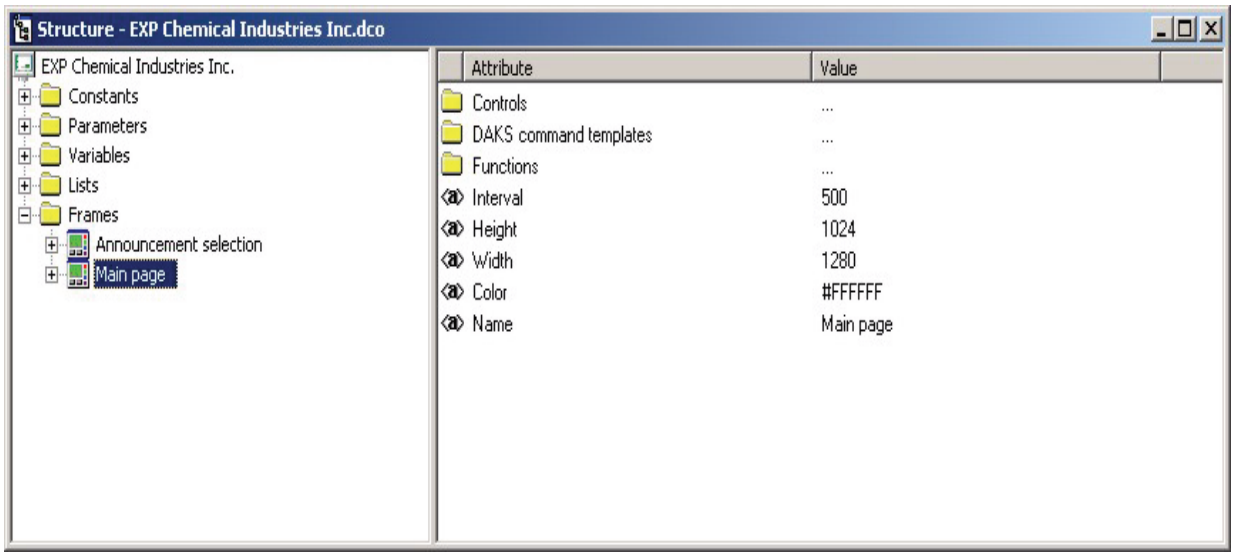


Image 4-2 Image of the Structure window with example

The Structure window is divided into two separate areas:

- the tree structure and
- the list view.

4.3.1 The tree structure of the Structure window

The tree structure is located underneath the root (with the project name) and has the below five nodes:

- Constants (seeSection 5.4, "Constants")
- Parameters (see Section 5.5, "Parameters")
- Variables (see Section 5.6, "Variables")
- Lists (see Section 5.7, "Lists")
- Frames (see Section 5.8, "Frames")

You can open the nodes and their child nodes by clicking and close them again by clicking . In this way you can for example open the entry 'Frames' for a direct overview of all created Frames. When you select an entry in the tree structure its subentries are, if available, automatically output in the list view. For example, when you select a specific Frame its corresponding entries such as 'Parameters', 'OScAR-Pro commands templates' etc. are automatically output in the list view.

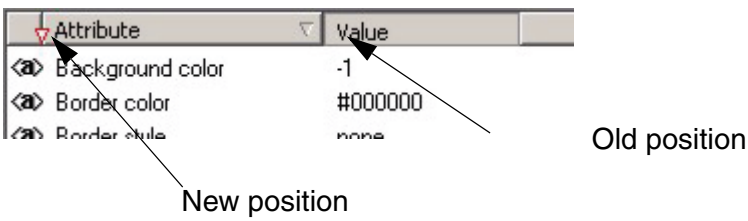
4.3.2 The list view of the Structure window

As a rule, the details that are output in the list view always match the entry you select in the tree structure. If, for example, you select 'Parameters' in the tree structure, the list view will output all parameters

Change the sequence of the columns

You can also easily change the column order to best meet the own requirements.

Follow the below instructions to change the column order:

No.	Task
1.	Make a left mouse key click the column header and keep it pressed.
2.	Move the column header to the new position. The new position is indicated with a small arrow: 
3.	Release the mouse key. The column is shifted.

Sort the list

The list is sorted in the same way as you sort in other Windows programs, namely by making as single mouse click into the column header. Every further mouse click into the same header will sort the entries of this column, alternating between ascending and descending order.

Edit entries

For a number of entries in the tree structure, the list view contains at least one column whose entries can be edited. If you want to edit any of these entries use the left mouse key and doubleclick the entry you want to edit. This will either lead you to a user window in which you can edit the entry or open an entry or selection field directly in the column itself (if needed with the option to define the new entry yourself).

4.4 Setup and application of the Layout window

The Layout window constitutes the work station for all graphic operations in the OScAR-Pro Customized Operatorand enables you to edit the representation of the Frames in the DCO-Script.

Use the Layout window to place individual Controls in your interface for the operation and for the output of information.

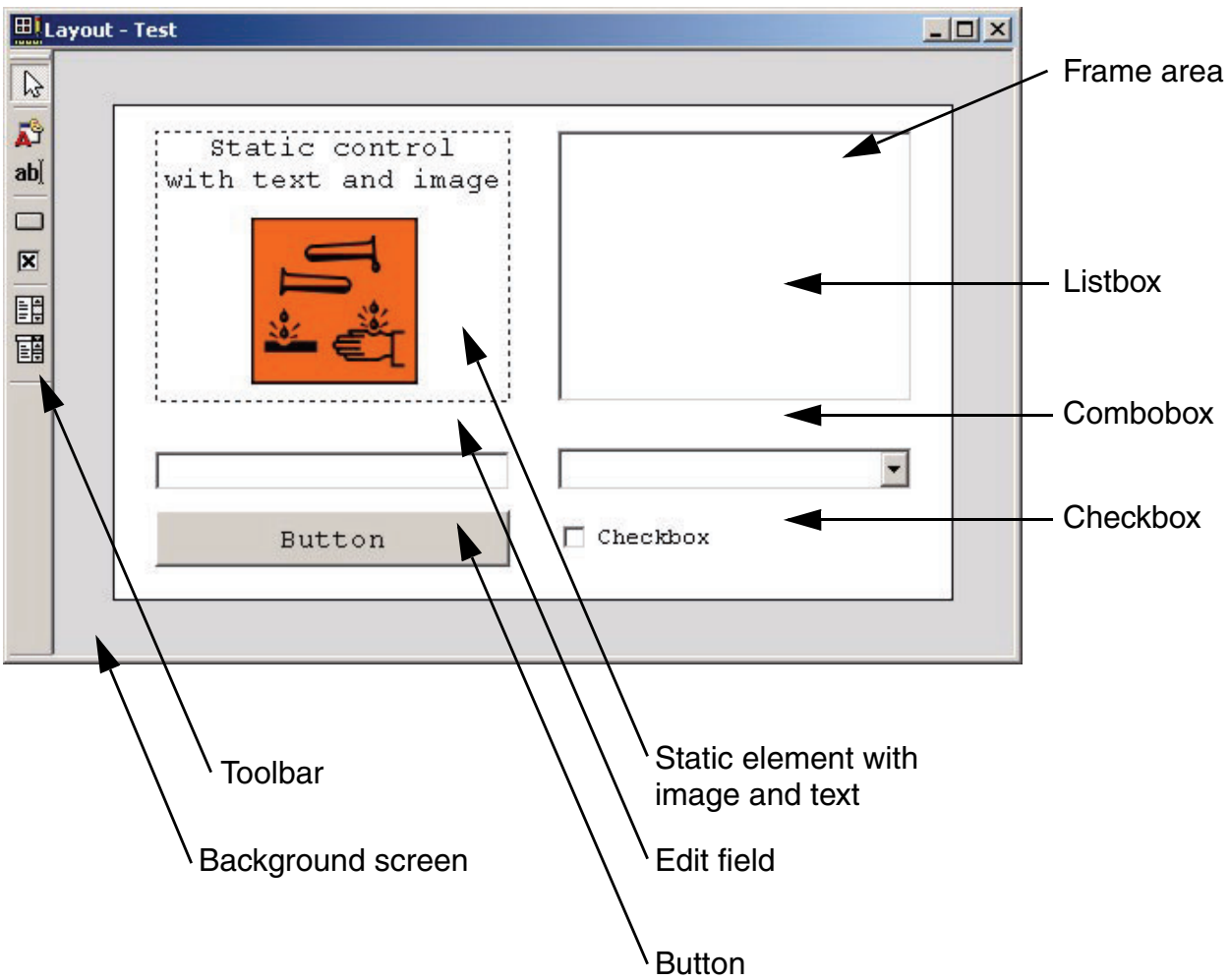


Image 4-3 Image of the Layout window with example

The frame that is output in the layout window depends on the entry you select in the tree structure. If, for example, the Layout window is open and you select an entry in the tree structure next to the node 'Frames', the Layout window will output the Frame that was marked last.

4.4.1 Toolbar and Controls

The toolbar is usually located at the right hand side of your screen. If you want it to float freely above your window or anchor at any of the other three sides of your screen, simply make a mouse click on the upper end of the toolbar, keep the mouse key pressed and drag it to the new position.

The actual Frame area is located on the gray background screen of the Layout window. It is within the dimensions of this area that you can place Controls.

By definition, Controls are elements that represent a something further and/or enable you to actually realize the functions of your interface.

The Layout window includes the following Controls:

Control	**Description**
Static element	A 'Static element' serves to place graphics giving information as well as texts on your interface.
Edit field	An 'Edit field' enables the later user (Operator) to enter alpha-nu-meric and/or numeric information.
Button	A 'Button' can set specific modes and trigger events. It can be compared to a switch.
Checkbox	A 'Checkbox' exclusively serves to set specific modes.
Listbox	A 'Listbox' outputs lists in which the user can mark individual entries.
Combobox	A 'combobox' serves to give a choice of options from with the user (Operator) can select exactly one entry.

Table 4-3 Summary of all available Controls

Both the Controls that are placed in a Frame and the Frame area itself can be modified in terms of size. Also, you can move Controls to a new place or have them aligned or positioned automatically.

4.4.2 Mark a Frame area or a Control

Before you can edit a Frame area or a Control, you need to mark the corresponding element (Frame area or Control). For Controls you also have the option to edit several Controls at the same time.

The below table illustrates the different ways in which marked elements are output on the screen using the example of marked and unmarked Buttons:

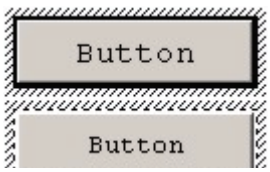
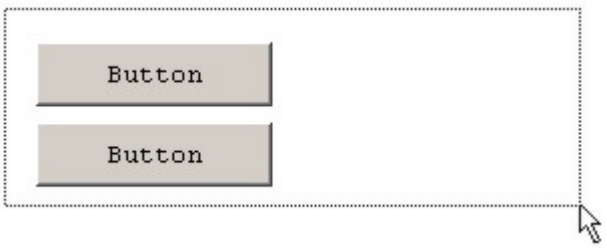
Button	**Description**
Not marked 	The element is neither marked nor surrounded by an extra frame.
One Button marked: 	If only one Button is marked it is surrounded by a frame with accented edges and squares both at its corner points and in the center of each line.
More than one Button marked: 	If two or more Buttons are marked, each button is surrounded by a frame that has accented edges but no squares. The Button that has the focus has an additional solid black frame on the inside of the accented frame.

Table 4-4 Rendition of marked objects

To mark only one element simply make a left mouse click on the element. This will give the element the bounding box.

There are two ways to mark more than one element in one step:

1. Mark the first element, press the SHIFT key and keep it pressed and make a left mouse click each other element you want to mark. To delete the marking from an element simply click the element again.
2. Move the mouse cursor over your window or Frame area and find a place where it does not collide with any other element. Then press the left mouse key, keep it pressed and pull a bounding box around the elements you want to mark. Now release the mouse key. Every element that is completely surrounded by the bounding box is marked:



4.4.3 Move Controls

There are two ways to move one or several Controls:

1. Mark the elements you want to move and use the arrow keys (←↑↓→) to shift them to the new position. Each time you press an arrow key the elements are shifted in increments of one pixel. To increase these increments to five pixels, simply press the SHIFT key together with the arrow key.
2. Mark the elements you want to move to a new position and move the mouse cursor over one of the marked elements. This will change the mouse cursor to ✣. Now press the left mouse key and keep it pressed. The elements can now be moved to the new position.

4.4.4 Change the size of Frames and Controls

There are two ways to change the size of a Control:

1. Mark the elements you want to select, press the **SHIFT** and **Ctrl** key and keep both keys pressed, and use the arrow keys (←↑↓→) to increase or decrease the size of the element. Each time you press an arrow key the size of the selected elements will increase or decrease in increments of 1 pixel.
2. Mark the element you want to select and move the mouse cursor over one of the 8 black squares of the accented frame. This will change your mouse cursor to:

Position of the black square	**Cursor**
Upper left and lower right corner	
Upper and lower center	
Left and right center	
Lower left and upper right corner	

Now press the left mouse key, keep the key pressed and change the size as needed in the directions indicated by the mouse cursor.

You can also blend several elements in size.

To do so, mark at least two elements you want to blend in size. Here, the DCO-Designer will usually focus on the first element that is marked. Now go to the menu bar, open "Layout→Make Same Size" and choose the way in which you want to blend the marked elements ("Width", "Height" or "Both"). The elements are now blended in size in keeping with this selection and on the basis of the element that has the focus, usually the one that was marked first.

4.4.5 Align and space elements automatically

The DCO-Designer makes it possible to align elements easily with another elements:

To do so, mark at least two objects, go to the menu bar and open "Layout→Align", and select the way in which you want to align the objects ("Top", "Left", "Right", "Bottom", "Horiz. center", "Vert. center"). The DCO-Designer will align the marked objects with the elements that has the focus.

Just as easily you can also space elements evenly:

To do so, mark at least three objects, go to the menu bar and open "Layout→Space evenly" and select the way in which you want to space the objects ("Across", "Down"). The DCO-Designer will evenly space the marked elements:

- "Across", i.e. horizontally from side to side between the outer left and the outer right element,
- "Down", i.e. vertically from top to bottom between the highest and the lowest element.

4.5 Setup and application of the Preview window

The preview window constitutes the test area of theOScAR-Pro Customized Operator. It is this environment that proofreads your settings in the DCO-Script for validity and consistency and that makes it possible to test the entire script.

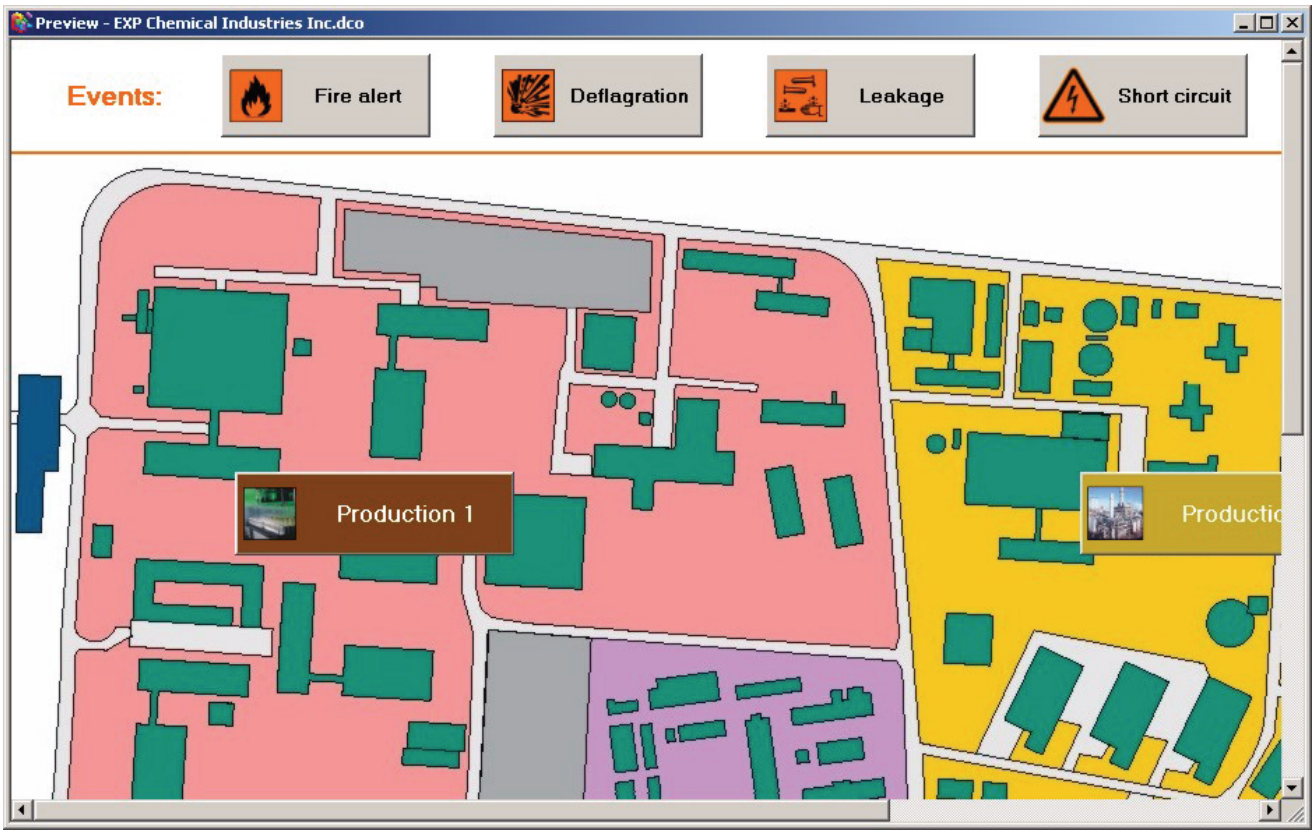


Image 4-4 Image of the Preview window with example project

In this test you can also carry out an easy simulation of the connection to a OScAR-Pro-TT Operator-Tool.

4.6 General user dialog windows

In addition to the three windows of the working area, there are modal user dialogs that enable you to enter or select individual values and properties.

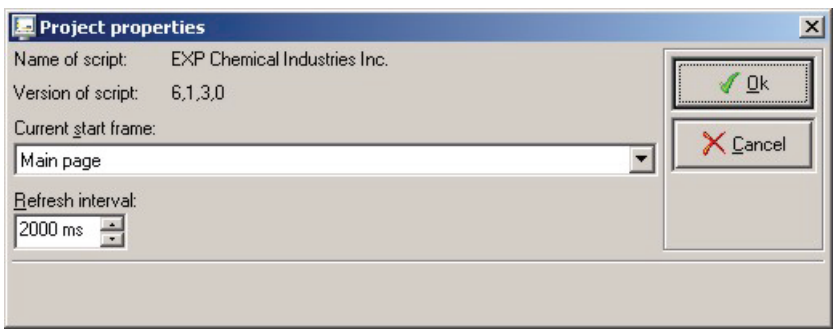
4.6.1 Edit project properties

Follow the below instructions to edit the project properties:

No.	Task
1.	Start the DCO-Designer.
2.	Open the menu "Project→Settings→Properties...". The window "Project properties" will automatically pop up.
3.	Edit the properties as needed and in keeping with the field descriptions.
4.	When you have finished click **Ok** to save the project properties.

Table 4-5 Edit project properties

Summary of the fields in the window "Project properties"

Input field	Description
	
Name	The field that displays the project name.
Version	The field that displays the version number of the DCO-Script.
Start window	The field that defines the DCO start window in the OScAR-Pro-TT Operator-Tool.
Refresh interval	Use this field to enter the interval in milliseconds in which you want the DCO to query the OScAR-Pro-TT Operator-Tool for any changes of the process status (e.g. Broadcast started/end? Info telephone profile switch? etc).

Summary of the fields in the window "Project properties"

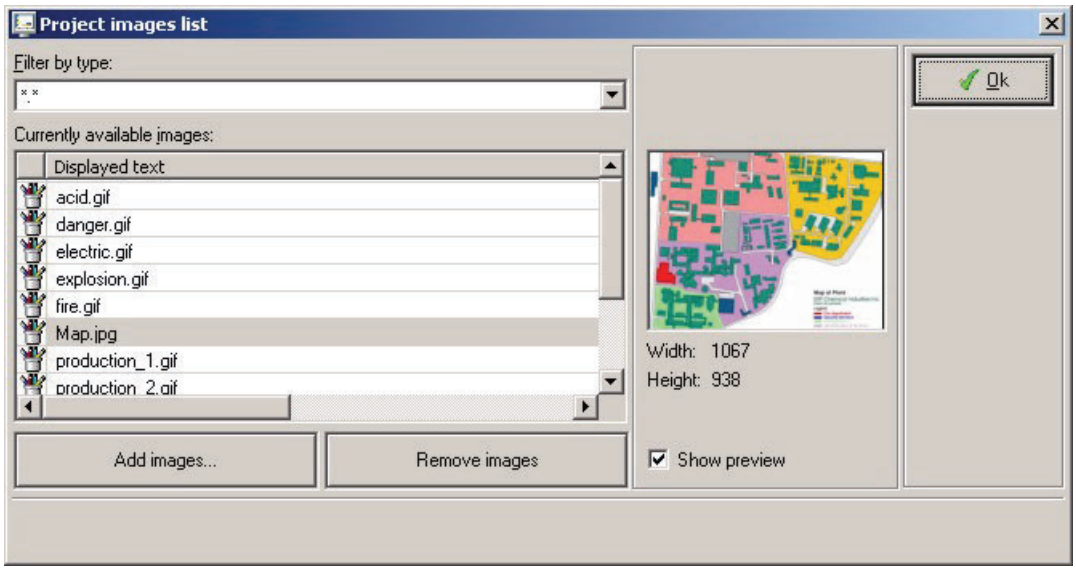
4.6.2 Administration of the Image lists

The window "Project image list" serves to administrate the images that are used in a project. Follow the below instructions to edit the Image list:

No.	Task
1.	Start the DCO-Designer.
2.	Open the menu "Project→Settings→Image list...". This will open the window "Project image list".
3.	Add new images to the project or delete obsolete images from the project (see below). If you activated the Image list via the properties of a Control, select the image you want to assign to this Control.
4.	Now click **Ok** to close the Image list or copy the assigned image to the proper Control.

Table 4-6 Administration of the 'Project image list'

Summary of the fields in the window "Project image list"

Input field	Description
	
Filter by type	Editable drop-down combobox to filter the available images by type.
Currently available images	This list outputs all images that are currently available in keeping with the selected filter (select the image type = *.* to have all images output).
Add images...	Use this button to add new images to your image list. When you click this button a user dialog will automatically open up to select the image file(s) that you want to add to your image list.
Remove images	Use this button to delete the marked image(s) from the image list.

Summary of the fields in the window "Project image list"

4.6.3 Process colors and Standard colors for process lists

With the window "Standard colors for process lists", you can define the colors you want to use in new projects to signal the different process states. However, please bear in mind that the colors selected at this level are exclusively used for visual outputs within Controls of the type "Listbox".

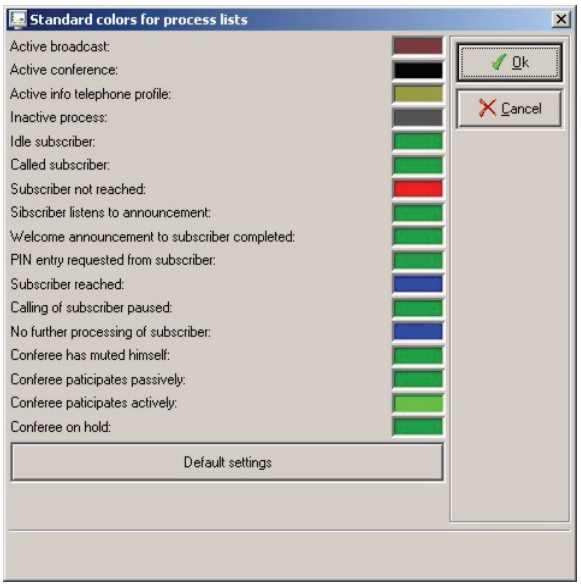
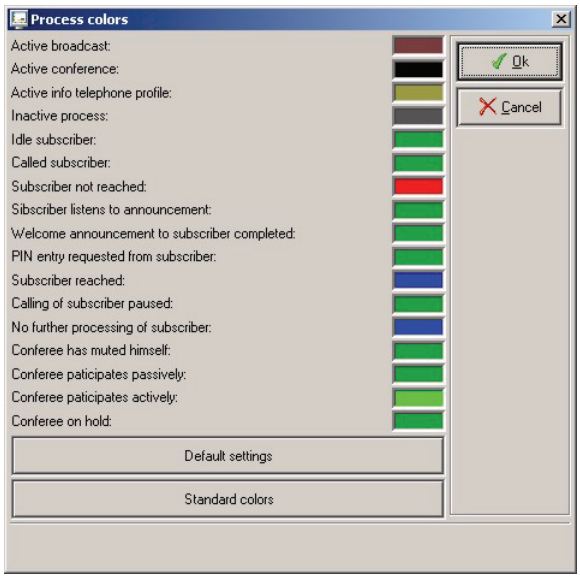
Use the Listbox property "Process colors" to customize the process colors for each Listbox individually (see Section 5.9.12, "Child nodes and special attributes of Listboxes").

Follow the below instructions to customize standard colors for process lists:

No.	Task
1.	Start the DCO-Designer.
2.	Go to the menu bar and click "Options→Standard colors...". This will open the window "Standard colors for process lists".
3.	To change a color simply doubleclick the box with its sample next to the entry you want to edit (see below). This will open the window "Color (seeSection 4.6.5, "Edit colors") in which you can select the preferred new color.
4.	Click **OK** to save your changes.

Table 4-7 Edit standard colors for process lists

Summary of the fields in the windows "Standard colors for process lists" and "Process colors"

Input field	Description
	
Active broadcast:	This color visualizes a broadcast that is currently active.
Active conference:	This color visualizes a conference that is currently ongoing.
Active info telephone profile:	This color visualizes an info telephone profile that is currently active.
Inactive process:	This color visualizes an inactive broadcast- or conference process.
Idle subscriber:	This color visualizes a broadcast member or conferee whose telephone line is idle.
Called subscriber:	This color visualizes a broadcast member or conferee who is currently being called by the system.
Subscriber not reached:	This color stands for a broadcast member or conferee who could not be reached.
Subscriber listening to announcement	This color visualizes a subscriber who was reached and who is momentarily listening to the broadcast announcement or the welcome message of the conference.
Welcome announcement to subscriber completed:	This color visualizes a subscriber who has been played the full broadcast announcement or conference welcome announcement.

Input field	Description
PIN entry requested from subscriber:	This color visualizes a broadcast member or conferee who has been requested to enter his PIN.
Subscriber reached:	This color visualizes a broadcast member or conferee who is has been successfully reached.
Calling of subscriber paused:	This color visualizes a broadcast member or conferee who is momentarily in a dialing pause.
No further processing of subscriber:	This color visualizes a broadcast member or conferee whose processing has been fully completed.
Conferee has muted himself:	This color visualizes a broadcast member or conferee who has switched himself to mute (microphone OFF).
Conferee participates passively:	This color stands for a conference member who is partaking passively in the conference (i.e. listening only).
Conferee participates actively	This color stands for a conference member to is participating actively in the conference (i.e. both listening and speaking).
Conferee on hold:	This color visualizes a subscriber who has temporarily left the conference (hearing on-hold message).
Default settings	Button to reset all values to the default settings.
Standard colors	This button is only visible in the window "Process colors". Use this button to reset all values to the standard colors.

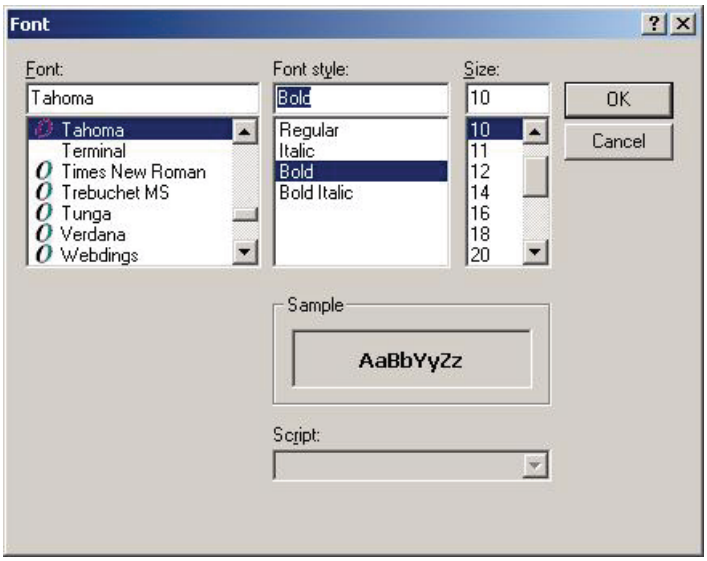
4.6.4 Edit fonts

Use the window "Font" to define the fonts of the texts that are output in the various elements of the Frame.
Follow the below instructions to select a font:

No.	Task
1.	Start the DCO-Designer.
2.	In the tree of the Structure window, open the attributes of the relevant Control and doubleclick 'Font' in the list view. This will open the window "Font".
3.	Select the font, font style and the size you want to use (see below).
4.	Click **OK** to save your changes.

Table 4-8 Add new font

Summary of the fields in the window "Font"

Input field	Description
	
Font	Edit field to enter the font you want to use. Underneath this field you will find a list with all fonts that are available to you.
Font style	Edit field to enter the font style you want to use. Underneath this field you will find a list with all font styles that are available to you.
Size	Edit field to enter the font size you want to use. Underneath this field you will find a list with all font sizes that are available to you.

Summary of the fields in the window "Font"

Note:
Each time you close this window with **OK**, the system will save your changes and use the settings as a template for new Controls.

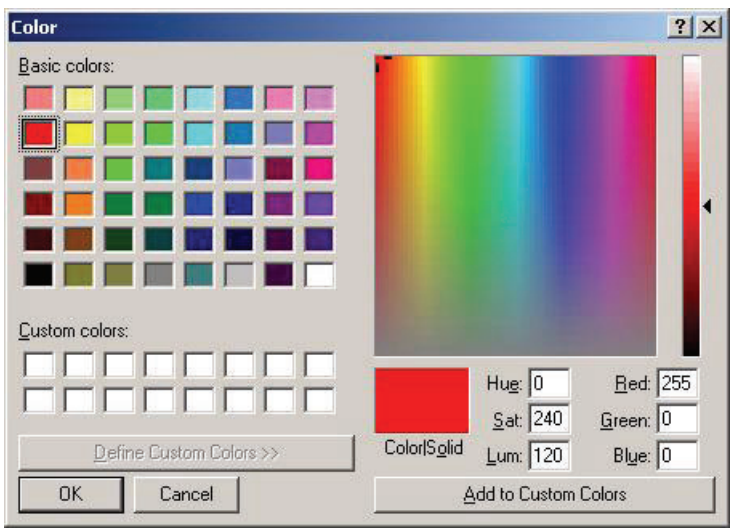
4.6.5 Edit colors

Use the window "Colors" to define the background and foreground color for the different Control elements of a Frame.
Follow the below instructions to edit the color table:

No.	Task
1.	Start the DCO-Designer.
2.	In the tree of the structure window, open the attributes of the relevant control and doubleclick "Text color" in the list view. This will activate a drop down combobox. Unfold the combobox and click "Select color...". The window "Color" will open.
3.	Select the color you want to use (see below).
4.	Click **OK** to save your changes.

Table 4-9 Add new font

Summary of the fields in the window "Color"

Input field	Description
	
Basic colors	Table with the basic colors that are available in Windows. To choose a color from this table simply make a left mouse click on the wanted color box.
Custom colors	Table with the customized colors you have defined so far. To choose a color from this table simply make a left mouse click on the wanted color box.
Color|Solid	Window with a sample of the color you are currently editing.

Summary of the fields in the window Font"

Input field	Description
Hue	Edit field to enter the color hue represented by an integer in a scale from 0 to 239. If you change the value of this field the reticle will move horizontally over the above prismatic color system.
Sat.	Edit field to enter the color saturation represented by an integer in a scale from 0 to 240. If you change the value of this field, the reticle will move vertically across the above prismatic color system.
Lum.	Edit field to enter the brightness value represented an integer in a range from 0 to 240. As you change the lumination value, the arrow of the brightness scale next to the prismatic color system will move up and down .
Red	Edit field to enter directly the red components of a color represented by an integer in a scale from 0 to 255. If you modify this integer, the reticle will jump to the corresponding position in the above prismatic color system and brightness scale.
Green	Edit field to enter directly the green components of a color represented by an integer in a scale from 0 to 255. If you modify this integer, the reticle will jump to the corresponding position in the above prismatic color system and brightness scale.
Blue	Edit field to enter directly the blue components of a color represented by an integer in a scale from 0 to 255. If you modify this integer, the reticle will jump to the corresponding position in the above prismatic color system and brightness scale.
Add to Custom Colors	Use this button to add the current color to your list of "Custom colors".

Summary of the fields in the window Font"

Note:
You can also use the right mouse key to click the wanted color directly in the prismatic color system or brightness scale.

5 The Elements of a DCO-Script

Overview

This chapter covers the elements, properties, values etc. of the DCO-Script and shows you how to use them.

The descriptions and explanations in this chapter are based on the assumption that you have successfully started the DCO-Designer (see Section 4.1, "Start the OScAR-Pro Customized Operator") and opened an already existing or created a new project.

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5.11.19 The Instruction "OffAllListBoxItemBlink"
5.11.20 The Instruction "OffButtonBlink"
5.11.21 The Instruction "OffEditBackColorBlink"
5.11.22 The Instruction "OffEditTextColorBlink"
5.11.23 The Instruction "OffListBoxItemBlink"
5.11.24 The Instruction "SetButtonBlink"
5.11.25 The Instruction "SetButtonColor"
5.11.26 The Instruction "SetButtonPicture"
5.11.27 The Instruction "SetButtonPictureScal"
5.11.28 The Instruction "SetButtonRect"
5.11.29 The Instruction "SetButtonStaticBackColor"
5.11.30 The Instruction "SetButtonStaticBorderColor"
5.11.31 The Instruction "SetButtonStaticPictureName"
5.11.32 The Instruction "SetButtonStaticPicturePos"
5.11.33 The Instruction "SetButtonStaticPictureScale"
5.11.34 The Instruction "SetButtonStaticRect"
5.11.35 The Instruction "SetButtonStaticStatus"
5.11.36 The Instruction "SetButtonStaticText"
5.11.37 The Instruction "SetButtonStaticTextColor"
5.11.38 The Instruction "SetButtonStaticTextPosition"
5.11.39 The Instruction "SetButtonStatus"
5.11.40 The Instruction "SetButtonText"
5.11.41 The Instruction "SetButtonTextColor"
5.11.42 The Instruction "SetCheckBoxBackColor"
5.11.43 The Instruction "SetCheckBoxCaption"

5.11.44 The Instruction "SetCheckBoxRect"
5.11.45 The Instruction "SetCheckBoxState"
5.11.46 The Instruction "SetCheckBoxStatus"
5.11.47 The Instruction "SetCheckBoxTextColor"
5.11.48 The Instruction "SetCheckBoxToVariable"
5.11.49 The Instruction "SetComboBoxBackColor"
5.11.50 The Instruction "SetComboBoxList"
5.11.51 The Instruction "SetComboBoxRect"
5.11.52 The Instruction "SetComboBoxStatus"
5.11.53 The Instruction "SetComboBoxTextColor"
5.11.54 The Instruction "SetComboToVariable"
5.11.55 The Instructions "SetEditBackColor"
5.11.56 The Instruction "SetEditBackColorBlink"
5.11.57 The Instruction "SetEditRect"
5.11.58 The Instruction "SetEditStatus"
5.11.59 The Instruction "SetEditText"
5.11.60 The Instruction "SetEditTextColor"
5.11.61 The Instruction "SetEditTextColorBlink"
5.11.62 The Instruction "SetEditToVariable"
5.11.63 The Instruction "SetFrameColor"
5.11.64 The Instruction "SetListBoxBackColor"
5.11.65 The Instruction "SetListBoxBlinkTime"
5.11.66 The Instruction "SetListBoxItemBlink"
5.11.67 The Instruction "SetListBoxItemColor"
5.11.68 The Instruction "SetListBoxList"
5.11.69 The Instruction "SetListBoxRect"
5.11.70 The Instruction "SetListBoxSelectionToVariable"
5.11.71 The Instructions "SetListBoxStatus"
5.11.72 The Instruction "SetListBoxTextColor"
5.11.73 The Instruction "SetListBoxToVariable"
5.11.74 The Instruction "SetStaticBackColor"
5.11.75 The Instruction "SetStaticBorderColor"
5.11.76 The Instruction "SetStaticPictureName"
5.11.77 The Instruction "SetStaticPicturePos"
5.11.78 The Instruction "SetStaticPictureScale"
5.11.79 The Instruction "SetStaticRect"
5.11.80 The Instruction "SetStaticStatus"
5.11.81 The Instruction "SetStaticText"
5.11.82 The Instruction "SetStaticTextColor"
5.11.83 The Instruction "SetStaticTextPosition"
5.11.84 The Instruction "SetVariable"
5.11.85 The Instruction "StartProgram"

5.1 General structure

As mentioned above in Section 4.3, "Setup and application of the Structure window", the DCO-Script is output in the Structure Window in a hierarchical structure.

The below image illustrates the Structure window and its entries that are explained in full detail in this chapter:

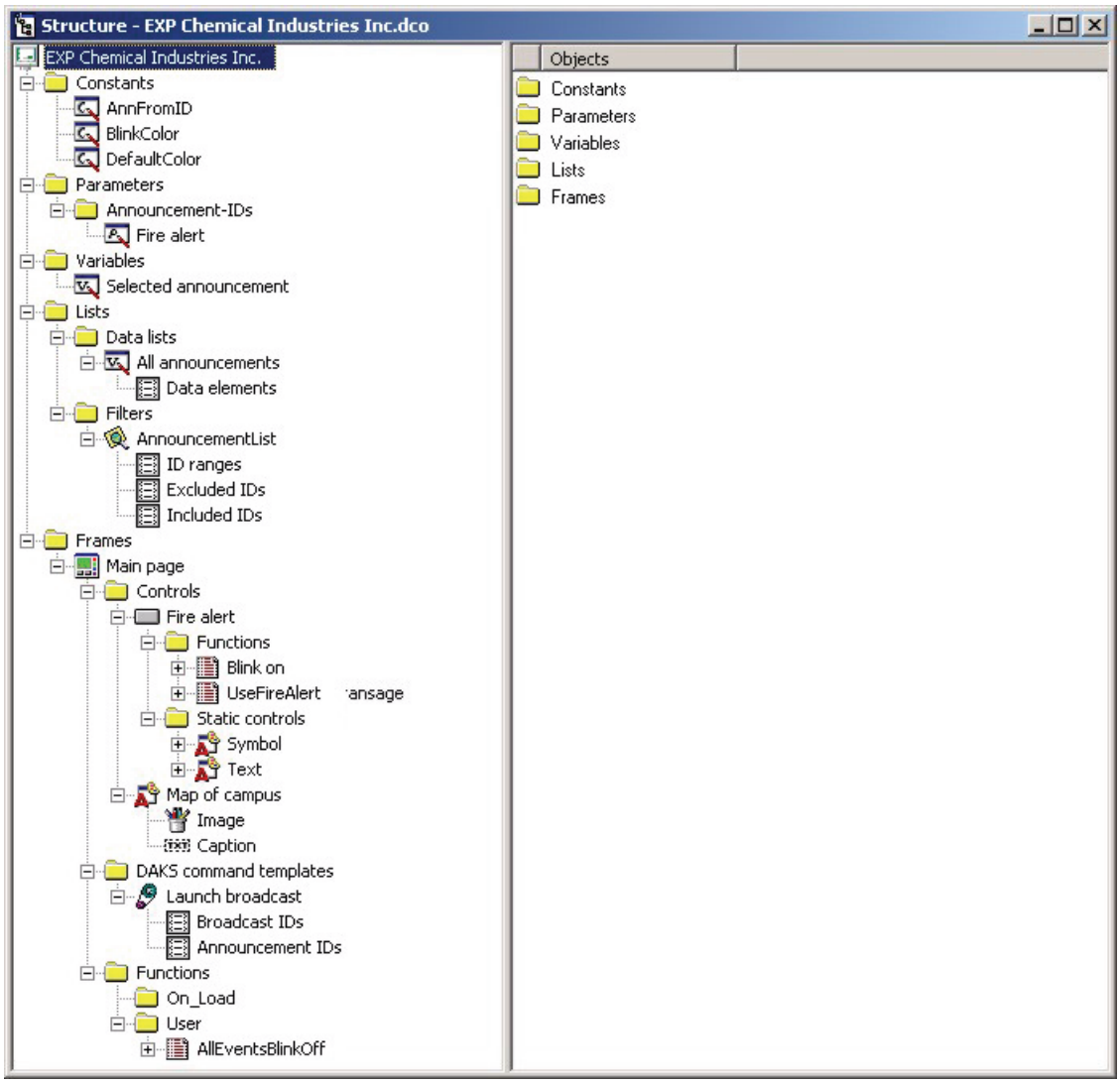


Image 5-1 View of the Structure window with numerous entries

Right underneath the root, the Structure window is divided into

Node	**Description**
Constants	Use the node „Constants“ to create unchanging, constant elements. These elements remain the same throughout the entire project and can be placed any number of times at any places you want in your project. Their values can be adjusted centrally in the OScAR-Pro Customized Operator.
Parameters	Use the node „Parameters“ to create parameterizable elements. These elements can be used in the same way as Constants with the difference that their values can be adjusted easily through the Parameter editor of the OScAR-Pro-TT Operator-Tool.
Variables	Use the node „Variables“ to create global place holders that can be used for the exchange of information between Frames.
Lists	Use the node „Lists“ to create lists of place holders. These elements will help you to fill the Controls "Listbox" and "Combobox" with data. You can either predefine the individual list entries in the DCO-Script (same as for Constants) or have them filled with data via various OScAR-Pro-TT Operator-Tool commands.
Frames	Use the node „Frames“ to create the Frames that are output on the screen and their Controls. During a project, the number of Frames that may be created and that the user may move between is unrestricted.

Table 5-1 Description of the predefined nodes of the tree structure

Also, there are a number of different data types that are used in the DCO-Script and thus in the Structure window.

5.2 The DCO data types and their value ranges

Every DCO-Script uses special data types, or references to Controls that belong to these data types, for the properties of the different objects.

Also, the DCO-Designer only supports meaningful assignments of data types and references to the pertinent properties.

The below table summarizes the possible data types and their values ranges:

Data type	Value range	Description
bool	0, 1	Data type for logic statements with 0 = false/untrue/not assigned/not enabled, and 1 = correct/true/assigned/enabled.
byte	Positive integer between 0 and 255	Data type for various small integers.
int	Positive or negative integer between -32768..32767	Data type for overall integers.
uint	Positive integer between 0..65535	Data type for overall and purely positive integers.
string	Any text, max. 256	Data type for texts.
phone_no	Text, max. 24 characters	Phone numbers with: *space character*, #, (,), *, +, -, /, *comma*, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.
float	Floating point number between $\pm$ 1,4 e^{-45} .. $\pm$ 3,4 e^{+38}	Data type for very precise rational values.
bdc_id	Broadcast ID	Valid ID of a broadcast administrated in the DAKS-TT Administrator-Tool.
con_id	Conference ID	Valid ID of a conference administrated in the DAKS-TT Administrator-Tool.
cas_id	Call profile ID	Valid ID of a call profile administrated in the DAKS-TT Administrator-Tool.

Table 5-2 Summary of the different data types

Data type	Value range	Description
ann_id	Announcement ID	Valid ID of an announcement administrated in the DAKS-TT Administrator-Tool.
dsp_txt	Display text, max. 64 characters	Text message for output on the display of a telephone handset.
color	#000000... #FFFFFF	Data type to identify color values in hexadecimal convention. The format is **#**<*red*><*green*><*blue*>. Each of the 3 color components may range between 00 .. ff. **Examples:** • `#000000`: black • `#FF0000`: light red • `#00FF00`: light green • `#0000FF`: deep blue • `#FFFFFF`: white
process	Process ID	ID of one active process in the OScAR-Pro-TT Operator-Tool (i.e. only in the OScAR-Pro server).
itemlist	DCO data types	List comprising the data types described in this table. It is these lists that are used to fill the Controls "Listbox" and "Combobox".

Table 5-2 Summary of the different data types

5.3 Formulas

Formulas can be used nearly everywhere, e.g. to describe the values of attributes or in functions (see below).

Formulas are computing instructions that are used to carry out logic operations with integers or concatenated strings.

All Formulas applied in a DCO-Script are output in
@(and **)@** .

Every Formula consists of a statement with a minimum of 2 elements and a logic operation that lies between these two elements.

For example, if you take the strictly numeric statement **@(1 + 2)@**, the integers **1** and **2** represent the elements whereas the **+** sign represents the logic operation.

Logic operations can be mathematical signs or keywords. You can also add further brackets to a Formula to add additional statements, e.g. **@(1 + (2 * 28))@.**

Note:
In every Formula, a space character must be entered in front of and after every statement and in front of and after each logic operation.

The following rules apply:

- Every Parameter, Variable, or Control (see below) as well as every direct entry can be an element of a statement.
- All elements in a Formula must be of the same data type (e.g. `STRING`).
- Do not use any Control names in the Control attributes (see below).
- Every Formula is processed from left to right and in keeping with the the mathematical rule "first multiplication and division, then addition and subtraction".

List of logical operations in Formulas:

Logical operation	Effect on numeric elements	Effect on text elements
+ or **ADD**	Adds the two integers	Connects two texts
- or **SUB**	Subtracts the second integer from the first	(no function)
***** or **MUL**	Multiplies the two integers with each other	(no function)

Table 5-3 List of logical operations in Formulas

Logical operation	Effect on numeric elements	Effect on text elements
/ or **DIV**	Divides the first integer by the second	(no function)
& or **AND**	Equals 1 if both integers are 1. Equals 0 if at least one of the two integers is 0.	(no function)
| or **OR**	Equals 1 if at least one of the two integers is 1. Equals 0 if both integers are 0.	(no function)
= or **EQL**	Equals 1 if the two integers are identical or 0 if the integers are different.	Equals 1 if the two texts are identical or 0 if the texts are different.
!= or **UEQ**	Equals 1 if the two integers different or 0 if the integers are identical.	Equals 1 if the two texts are different or 0 if the texts are identical.
> or **GT**	Equals 1 if the first integer is greater than the second, or 0 if not.	(no function)
>= or **GET**	Equals 1 if the first integer is greater than or equal to the second, or 0 if not.	(no function)
< or **LT**	Equals 1 if the first integer is smaller than the second, or 0 if not.	(no function)
<= or **LET**	Equals 1 if the first integer is smaller than or equal to the second, or 0 if not.	(no function)

Table 5-3 List of logical operations in Formulas

5.4 Constants

Constants are place holders and based on the data types described in the Section 5.2, "The DCO data types and their value ranges".

Constants always remain the same throughout a project. They can be used any number of times at any place within the project and their values can easily be edited at a central level in the OScAR-Pro Customized Operator.

When using a Constant in the subsequent course of the DCO-script, its name is output between %% characters. In the subsequent execution of the DCO-script, the Constant is automatically substituted in the script with its assigned values.

Example

You can, for example, define a specific color for a specific type of Button as a Constant and subsequently assign this Constant as text color to other Buttons. If you want to change the color of the Buttons of this type later, you do not need to edit each of these Buttons individually but can change the color of the Constant centrally, instead.

5.4.1 The attributes of Constants

Constants can have the following attributes:

Attribute	Description
Name	Edit field to enter the name of the Constant. Select a name that is recognizable and unique among the other Constants and Parameters.
Type	The selection field to enter the Constant type (see Section 5.2, "The DCO data types and their value ranges").
Value	Edit field to enter the initial value of the Constant (in keeping with the pertinent Constant type).

Table 5-4 Attributes of Constants

5.4.2 Add a new Constant

Follow the below instructions to create a new Constant

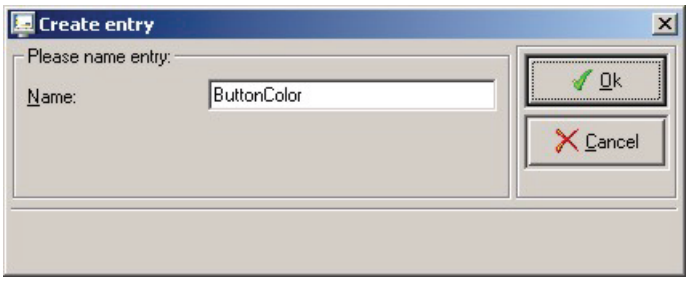
No.	Task
1.	Select the node "Constants" in the tree structure.
2.	Now go to the menu bar and select "Edit→New". This will open the following user window to add the new Control: 
3.	Enter a unique name for the new Constant.
4.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Constant in the tree structure of the Structure window, and there in the node "Constants". If necessary, you can now edit the attributes of the new Constant.

Table 5-5 Add a new Constant

5.4.3 Edit the attributes of a Constant

Follow the below instructions to edit the attributes of an existing Constant:

No.	Task
1.	Go to the tree structure on the right and open the node "Constants".
2.	Select the Constant that you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-6 Edit the attributes of a Constant

5.5 Parameters

Just like the Constants, Parameters are place holders based on the data types that are described in the Section 5.2, "The DCO data types and their value ranges".

Parameters can be used any number of times and at any place wanted in the project. They can be edited easily through the Parameter editor of the OScAR-Pro-TT Operator-Tool (see Section 7.4, "The DCO Parameter Editor").

When using the Parameters in the course of a DCO-script, their names are output in between %% signs.

When the DCO-script is loaded in the OScAR-Pro-TT Operator-Tool, the Parameters are initialized with their corresponding values as found in the Parameter file. If no entry is found for a Parameter in the matching Parameter file, the Parameter is automatically initialized with its default value as assigned in the DCO-script.

Parameters are divided into logical groups. A Parameter is also always assigned to a specific Parameter group.

Example

For example, you can define an announcement ID as a Parameter and assign it to different Instructions (see Section 5.11, "Instructions").

If the ID of the pertinent announcement is later changed through the DAKS-TT Administrator-Tool, you can easily adjust the corresponding Parameter with the Parameter editor of the OScAR-Pro-TT Operator-Tool without having to change the DCO-script.

5.5.1 Add a new Parameter group

Follow the below instructions to create a new Parameter group:

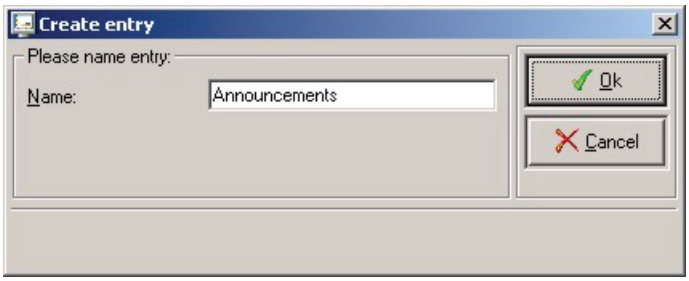
No.	Task
1.	Go to the tree structure on the right and select the node "Parameters".
2.	Now go to the menu bar and select "Edit→New". This will open the following user window to add the new Control: 
3.	Enter a unique name for the new Parameter group.
4.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Parameter group in the tree structure of the Structure window, and there in the node "Parameters".

Table 5-7 Add a new Parameter group

Note:
Note that the name given a created Parameter group cannot be changed afterwards.

5.5.2 The attributes of Parameters

Parameters have the following attributes:

Attribute	Description
Name	Edit field to enter the name of the Parameter. Select a name that is recognizable and unique among the other Parameters and Constants.
Type	Combobox to specify the type of the Parameter (see Section 5.2, "The DCO data types and their value ranges").
Value	Edit field to enter the default value for the Parameter (in keeping with the pertinent Parameter type). You may leave this field empty. In this case, however, you will need enter the value through the Parameter editor of the OScAR-Pro-TT Operator-Tool.
Comment	Edit field for additional information, e.g. explaining the use of the Parameter in DCO-script. The comment is output in the Parameter editor of the OScAR-Pro-TT Operator-Tool.

Table 5-8 Attributes of Parameters

5.5.3 Add a new Parameter

Follow the below instructions to create a new Parameter:

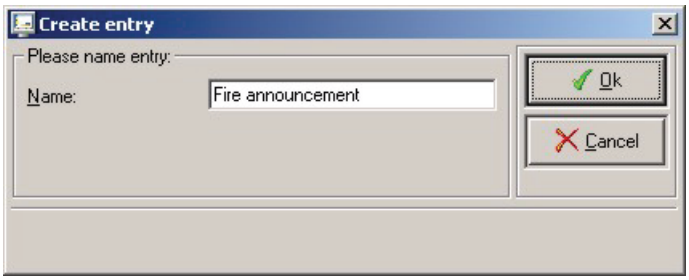
No.	Task
1.	Go to the tree structure on the right and open the node "Parameters"
2.	In the tree, select the Parameter group to which you want to add the new Parameter.
3.	Now go to the menu bar and select "Edit→New". This will open the following user window to add the new Control: 
4.	Enter a name for the Parameter that is clear and unique.
5.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Parameter in the tree structure of the Structure window, and there in its proper group in the node "Parameters". If needed, you can now edit the attributes of the Parameter.

Table 5-9 Add a new Parameter

5.5.4 Edit the attributes of a Parameter

Follow the below instructions to edit an existing Parameter:

No.	Task
1.	Go to the tree view of the Structure window and open the node "Parameters".
2.	Now open the Parameter group of the Parameter you want to edit.
3.	Select the Parameter you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-10 Edit the attributes of Parameters

5.6 Variables

Just like Constants and Parameters, Variables are place holders based on the data types as described in the Section 5.2, "The DCO data types and their value ranges".

Variables can be used any number of times and at any place in a project. Their first and foremost purpose is the exchange of information between the different elements of a Frame or also between different Frames (global).
Usually, the values of Variables change during the course of a DCO-Script in the OScAR-Pro-TT Operator-Tool.

When using the Variable in the subsequent course of the DCO-script, its name is output in between $ characters.

Example

You can, for example, create a Variable to memorize in a Frame which announcements were used by a subscriber for a broadcast. In a OScAR-Pro command template (see Section 5.8.7, "OScAR-Pro command templates"), the Variable could be used at the beginning of a broadcast so that the currently assigned value, namely the ID of the selected announcement, is transferred to the OScAR-Pro-TT Operator-Tool.

5.6.1 The attributes of Variables

Variables have the following attributes:

Attribute	Description
Name	Edit field to enter the name of a Variable. Make sure you select a name that is recognizable and unique in this list.
Type	Combobox to specify the type of the Variable (see Section 5.2, "The DCO data types and their value ranges").
Value	Editable combobox to enter the initial value of the Variable (in keeping with the pertinent Variable type).

Table 5-11 Attributes of Variables

5.6.2 Add a new Variable

Follow the below instructions to create a new Variable:

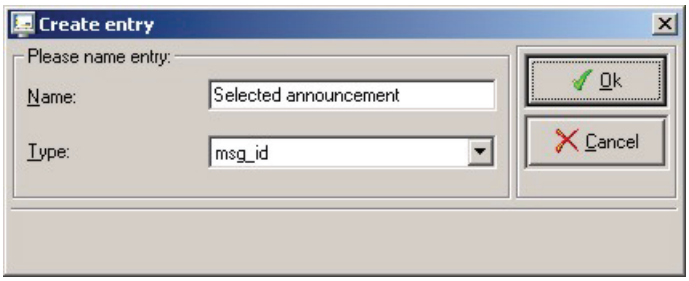
No.	Task
1.	go to the tree structure and open the node "Variables".
2.	Now go to the menu bar and select "Edit→New". This will open the following user window to add the new Control: 
3.	Assign a unique and recognizable name to the new Variable.
4.	Specify the Variable type.
5.	Finally, click **Ok** to close the window. The DCO-Designer will output the newly created Variable in the tree structure of the Structure window, and there in the node "Variables". You can now edit the attributes of the Variable.

Table 5-12 Add a new Variable

5.6.3 Edit the attributes of a Variable

Follow the below instructions to edit an existing Variable:

No.	Task
1.	Go to the tree structure and open the node "Variables".
2.	Now select the Variable you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-13 Edit the attributes of a Variable

5.7 Lists

The node "Lists" does not possess any attributes but has the child nodes

- "Data lists" and
- "Filters".

Short summary of the Data lists

The Data lists are place holders of a certain data type (see Section 5.2, "The DCO data types and their value ranges") with subordinate data elements. They serve to fill the Controls "Listbox" and "Combobox".

The Data lists can be filled in the OScAR-Pro Customized OperatorDCO-Designer with Constant data elements or obtain the data from theSection 5.11, "Instructions" through various Instructions (see OScAR-Pro-TT Operator-Tool).

Apart from the attributes, each Data list also has data elements that are output in the Controls "Listbox" and "Combobox" and administrated in a special child node called "Data Elements".

Short summary of Filters

The purpose of Filters is to control and restrict the filling of Data lists via the OScAR-Pro-TT Operator-Tool. For this purpose it is only the so-called IDs that can be used in Filters.

Assign these IDs to broadcast and conference groups, scenarios, info telephone profiles, and announcements via the DAKS-TT Administrator-Tool.

You can use Filters for the following Instructions (see Section 5.11, "Instructions":

- The Instruction "GetMessages": Fills a Data list with the administrated announcements.
- The Instruction "GetBroadcasts": Fills a Data list with the administrated broadcasts.
- The Instruction "GetConferences": Fills a Data list with the administrated conferences.
- The Instruction "GetScenarios": Fills a Data list with the administrated scenarios.
- The Instruction "GetInfotelephones": Fills a Data list with the administrated info telephone profiles.

5.7.1 The attributes and child nodes of the node "Data lists"

The attributes of Data lists

Data lists have the following attributes:

Attribute	Description
Name	Edit field to enter the name for the Data list. Select a name that is recognizable and unique among the Data lists.
Type	Combobox to specify the type of the Data list (see Section 5.2, "The DCO data types and their value ranges").

Table 5-14 Attributes of Data lists

The child nodes of the node "Data lists"

Child node	Description
Data elements	This child node can carry a whole List of data elements that are output in form of entries when the superimposed Data list is assigned to a Listbox.

Table 5-15 The child nodes of the node "Data lists"

The attributes of data elements

Data elements have the following attributes:

Attribute	Description
Displayed text	Edit field to enter the text with which the data element is output in a Listbox or Combobox.
Value	Editable combobox to specify the initial value of the data element (in keeping with the pertinent Data list type). Here you can: • either enter the value of the data element directly • or use the selection field and assign a Constant, Parameter or Variable.
Color	Editable combobox to specify the color in which the entry shall be rendered in a Listbox entry (ignored in Comboboxes). Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**.

Table 5-16 Attributes of data elements

5.7.2 Add a new Data list

Follow the below instructions to create a new Data list:

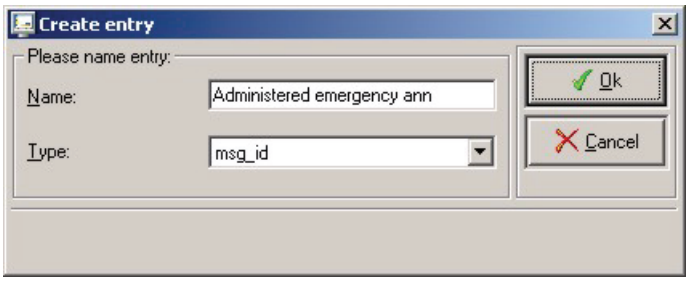
No.	Task
1.	Go to the tree view and open "Lists".
2.	Next, select the child node "Data lists".
3.	Now go to the menu bar and select "Edit→New". This will open the following user window to add the new Control: 
4.	Assign a unique and recognizable name to the new Data list.
5.	Specify the Data list type.
6.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Data list in the tree structure of the Structure window, and there in the node "Data lists". You can now edit the attributes of the Data list and, if needed, add data elements.

Table 5-17 Add a new new Data list

5.7.3 Edit the attributes of a Data list

Follow the below instructions to edit an existing Data list:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data lists".
3.	In the tree view, select the Data list you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-18 Edit Data list attributes

5.7.4 Add a new data element

Follow the below instructions to add a new data element to a Data list:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data lists".
3.	Open the Data list to which you want to add a new data element.
4.	In the relevant Data list, click the child node "Data element".
5.	Now go to the menu bar and select "Edit→New". A new data element is now automatically added to the List.
6.	In the active Edit field enter the text with which the data element shall be output in a "List-box" or "Combobox".
7.	If needed, you can now edit the other attributes of the new data element.

Table 5-19 Add new data element

5.7.5 Edit the attributes of a data element

Follow the below instructions to edit an existing data element:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data lists".
3.	Open the Data list whose data elements you want to edit.
4.	In the tree click the child node "Data elements".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-20 Edit the attributes of data elements

5.7.6 The attributes and child nodes of the node "Filters"

The actual Filters are created in the node "Filters" that is a child node of the node "Lists". Each Filter has the following child nodes:

- "ID ranges"
- "Included IDs"
- "Excluded IDs"

The attributes of Filters

Filters have the following attributes:

Attribute	Description
Name	Edit field to enter the name of the Filter.
Type	Combobox to specify the type of the Filter. Here you can: • **BDC** to invoke a list of all broadcasts administered in the database with the command „The Instruction "GetBroadcasts"“, • **CON** to invoke a list of all conferences administered in the database with the command „The Instruction "GetConferences"“, • **ITL** to invoke a list of all info telephone profiles administered in the database with the command „The Instruction "GetInfotelephones"“, • **MSG** to invoke a list of all announcements administered in the database with the command „The Instruction "GetMessages"“, or • **SCN** to invoke a list of all scenarios administered in the database with the command „The Instruction "GetScenarios"“.
Subtype	This attribute is only visible for the Filter type "MSG". Here you can: • **ALL** to invoke a list of all announcements (logical and physical) administered in the database, • **PHYSICAL** to invoke a list of all physical announcements administered in the database, or • **LOGICAL** to invoke a list of all logical announcements administered in the database.

Table 5-21 The attributes of Filters

The child nodes of the node "Filters"

Each "Filters" node has the following child nodes:

Child node	Description
ID ranges	This child node can contain a list of the **ID ranges** that shall be considered in a query. The value of each ID range entry lies within a range that is defined as "from" ..."to".
Included IDs	This child node can contain a list of **included IDs** that are expressible **considered** in a query, e.g. to ensure that the ID 4000 is always included in the query if properly administrated in the database.
Excluded IDs	This child node can contain a list of **excluded IDs** that shall be **neglected** in a query, e.g. to ensure that the ID 1000 is never included in a query, even if properly administrated in the database.

Table 5-22 The child nodes of the node "Filters"

In a query, the lists of a Filter are processed in the following sequence:

- first the entries of the child node "ID ranges"
- then the entries of the child node "Included IDs", and
- finally the entries of the child node "Excluded IDs".

Consequently, every ID that is listed in an ID range or as an Included ID, but at the same time also specified as Excluded ID, will not appear in the query result.

The attributes of ID ranges

ID ranges have the following attributes:

Attribute	Description
from	Editable combobox to specify the first ID starting with which datasets are let pass by the Filter. Here you can: • enter a valid ID with up to 4 digits, or • assign a Constant, a Parameter or a Variable of the data type **bdc_id**, **con_id**, **itl_id**, **scn_id** or **msg_id**.

Table 5-23 The attributes of ID ranges

Attribute	Description
to	Editable combobox to specify the last ID up to which datasets are let pass by the Filter. Here you can: • enter a valid ID with up to 4 digits, or • assign a Constant, a Parameter or a Variable of the data type **bdc_id**, **con_id**, **itl_id**, **scn_id** or **msg_id**.

Table 5-23 The attributes of ID ranges

The attributes of "Included IDs"

Included IDs have the following attributes:

Attribute	Description
Value	Editable combobox to specify an ID that will be accepted by the Filter. Here you can: • enter a valid ID with up to 4 digits, or • assign a Constant, a Parameter or a Variable of the data type **bdc_id**, **con_id**, **itl_id**, **scn_id** or **msg_id**.

Table 5-24 Attributes of Excluded IDs

The attributes of excluded IDs

Excluded IDs have the following attributes:

Attribute	Description
Value	Editable combobox to specify an ID that shall be **blocked** by the Filter. Here you can: • enter a valid ID with up to 4 digits, or • assign a Constant, a Parameter or a Variable of the data type **bdc_id**, **con_id**, **itl_id**, **scn_id** or **msg_id**.

Table 5-25 The attributes of Excluded IDs

Example

You may want to create a Filter with the name "Announcement List".
In "ID ranges" you added an entry to cover the value range *from* "0000" *to* "1999“.
In "Excluded IDs"you added an entry with the value "1000".
In "Included IDs" you added an entry with the value "4000".

If you invoke this Filter with the command "GetMessages", a Data list will be output with all administrated announcements whose IDs lie between "0000" and "1999". In addition, the List will include the announcement with the ID "4000" but omit the announcement with the ID "1000".

5.7.7 Add a new Filter

Follow the below instructions to create a new Filter:

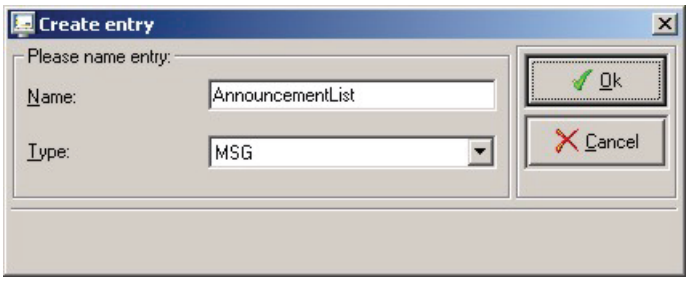
No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters".
3.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
4.	Enter a name for the Filter that is clear and unique.
5.	Specify the data type of the Filter.
6.	Finally, click **Ok** to close the window. The DCO-Designer outputs the newly created Filter in the tree structure of the Structure window, and there in the "Filters" child node of the node "Lists". If needed you can now edit the attributes of the Filters entries in the subordinate child nodes "ID ranges", "Included IDs" and "Excluded IDs".

Table 5-26 Create the Filter

5.7.8 Edit the attributes of a Filter

Follow the below instructions to edit an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	In the tree view, select the filter that you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-27 Edit the attributes of Filters

5.7.9 Add an ID range

Follow the below instructions to create a new ID range in an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, select the filter to which you want to add an ID range.
4.	In the tree structure, select the next child node "ID ranges".
5.	Now go to the menu bar and select "Edit→New". The DCO-Designer now outputs a new ID range in the list view on the left.
6.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-28 Add an ID range

5.7.10 Edit the attributes of an ID range

Follow the below instructions to edit the ID range of an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Still in the tree, open the filter that contains the Excluded ID you want to edit.
4.	In the tree structure, select the next child node "ID ranges".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-29 Edit the attributes of ID ranges

5.7.11 Add an Included ID

Follow the below instructions to add an Included ID in an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Still in the tree, open the Filter to which you want to add an Included ID.
4.	Click the entry "Included IDs".
5.	Now go to the menu bar and select "Edit→New". The DCO-Designer outputs the new "Included ID" in the list view on the left.
6.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-30 Add an Included ID

5.7.12 Edit the attributes of an Included ID

Follow the below instructions to edit the attributes of the included IDs of an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, open the filter whose Included IDs you want to edit.
4.	Click the entry "Included IDs".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-31 Edit the attributes of "Included IDs"

5.7.13 Add an Excluded ID

Follow the below instructions to add Excluded IDs to an existing filter:

No.	Task
1.	Go to the tree view of the Structure window and open the node "Filters".
2.	Still in the tree, open the filter to which you want to add an Excluded ID.
3.	Click the child node "Excluded IDs".
4.	Now go to the menu bar and select "Edit→New". The DCO-Designer outputs the new Excluded ID in the list view on the left.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-32 Add excluded IDs

5.7.14 Edit the attributes of an Excluded ID

Follow the below instructions to edit the attributes of the excluded IDs of an existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, open the filter whose Included IDs you want to edit.
4.	Click the child node "Excluded IDs".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-33 Edit the attributes of an Excluded ID

5.8 Frames

Use the node "Frames" to create and edit the various screen frames of the visual interface as they are output in the OScAR-Pro-TT Operator-Tool through the DCO-script.

You can create any number of Frames and customize their design individually. Use the Layout window to design the graphic look of the Frames created here.

The Frames themselves are created in the node "Frames". Here, each "Frame" node has the following three child nodes:

- "Controls",
- "OScAR-Pro command templates", and
- "Functions".

5.8.1 The attributes and child nodes of the node "Frames"

The attributes of Frames

Frames have the following attributes:

Attribute	Description
Type	Combobox to specify the type of the page. Here you can: • select **normal** to define a normal page or • select **toolbar** to define a toolbar page. Other than the special attributes described below, toolbar pages do not differ from normal pages.
Name	Edit field to enter the name of the Frame. Select a name that is recognizable and unique among the other Frame names.
Color	Editable combobox to choose the background color of the Frame. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**.

Table 5-34 Attributes of Frames

Attribute	Description
Width	Editable combobox to specify the Frame width in pixels. Here you can: • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**. You can also define the size of the Frame width with the menu "Layout" in the Layout window.
Height	Editable combobox to specify the Frame height in pixels. Here you can: • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**. You can also define the Frame height with the menu "Layout" in the Layout window.
Interval	Editable combobox to enter a time interval for the synchronous blinking of all Controls of the type "Button" in a Frame. Here you can: • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**.
Execute functions as snap-shot	Editable combobox to specify the behavior when loading the variables for processing the functions. Here you can: • select **0**, to specify that the variables are re-evaluated with every single call of a function or • select **1**, to specify that the variables are only evaluated on the first called function.
Special attributes for pages of type **normal**	
Toolbar	Combobox to select, which toolbar page is linked to this normal page. Here you can select a previously added toolbar page.

Table 5-34 Attributes of Frames

Attribute	Description
Special attributes for pages of type **toolbar**	
Position	Combobox to select the position where the toolbar page is shown relative to the normal page linked to. Here you can: • select **top**, to specify that the toolbar page ist shown on the upper border of the normal page. • select **bottom**, to specify that the toolbar page ist shown on the lower border of the normal page. • select **left**, to specify that the toolbar page ist shown on the left border of the normal page. • select **right**, to specify that the toolbar page ist shown on the right border of the normal page.
Toolbar size	Editible combobox to specify the heigth (with Position **top** or **bottom**) resp. width (with Position **left** or **right**) in pixels. Here you can: • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**.
Toolbar is fixed	Combobox to select whether the height resp. width of the toolbar page is adjustable at runtime. Here you can: • select **0**, to supress any with or height changes, • select **1**, to allow any with or height changes, • assign a Constant, Parameter or Variable of the data type **bool** or • assign the reference to a Control that has the data type **bool**.

Table 5-34 Attributes of Frames

The child nodes of the node "Frames"

The node "Frames" has the following child nodes:

Child node	Description
Controls	This node is used to administrate the Controls that were created in this Frame. For a detailed description of the Control, please see the Section 5.9, "Controls".
OScAR-Pro command templates	This node is used to administrate the command templates that are used to invoke queries of the OScAR-Pro-TT Operator-Tool or to activate processes via the OScAR-Pro-TT Operator-Tool. For a detailed description of the OScAR-Pro command templates, please see the Section 5.8.7, "OScAR-Pro command templates".
Functions	This node serves to administrate the Functions of the Frame. This node has the child nodes: • "**On_Load**“ The Functions created in this child node are executed automatically when the Frame is loaded. • „**On_Message**“ The Functions created in this child node are invoked with instructions of the type „BroadcastMessage“ (see Section 5.11.8, "The Instruction "BroadcastMessage""), by double-clicking on a listbox entry or by selecting an entry in a combobox. • „**On_Timer**“ The Functions created in this child node are invoked cyclic depending on the interval value (see Section 5.8.1, "The attributes and child nodes of the node "Frames"") of the page. • "**User**“ The Functions created in this child node can only be invoked with instructions of the type "Call" (see Section 5.11.7, "The Instruction "Call""). For a detailed description of the attributes of Functions, please see the Section 5.10, "Functions".

Table 5-35 The child nodes of the node "Frames"

5.8.2 Add a new Frame

Follow the below instructions to create a new Frame:

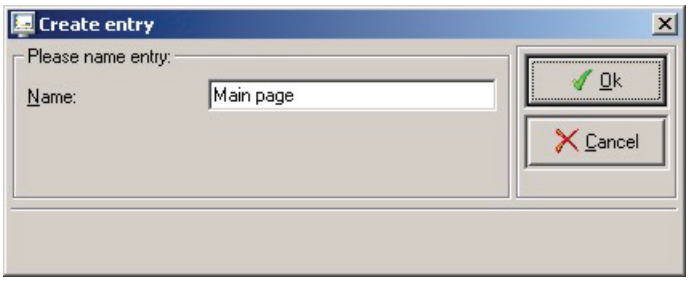
No.	Task
1.	Go to the tree view and select the node "Frames".
2.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
3.	Assign a unique and recognizable nameto the new Frame.
4.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Frame in the tree structure of the Structure window, and there in the node "Frames". If necessary, you can now edit the attributes of the new Frame.

Table 5-36 Add a new Frame

5.8.3 Edit the attributes of a Frame

Follow the below instructions to edit the attributes of an already existing Frame:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Select the Frame that you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".
4.	If needed, edit the Controls of the Frame (see Section 5.9, "Controls").
5.	If needed, edit the OScAR-Pro command templates of the Frame (seeSection 5.8.7, "OScAR-Pro command templates").
6.	If needed, edit the Functions of the Frame (see Section 5.10, "Functions").

Table 5-37 Edit the attributes of a Frame

5.8.4 Add a new Control through the Structure window

Follow the below instructions to add a new Control to a Frame via the Structure window:

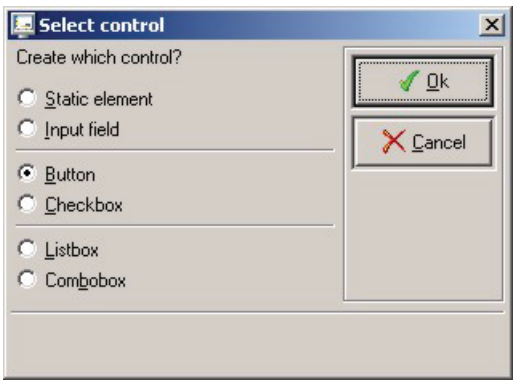
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new Control.
3.	Now click the child node "Controls" of that Frame.
4.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
5.	Select the Control type you want to add and close the window with **Ok**.
6.	This will open the following user window to add the new Control:
7.	Assign a unique and recognizable name to the new Control.
8.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Control in the tree view of the Structure window, and there in the child node "Controls" of the pertinent Frame. If needed you can now edit the attributes of the Control (see Section 5.9, "Controls").

Table 5-38 Add a new Control through the Structure window

5.8.5 Add a new Control through the Layout window

Follow the below instructions to add a new Control to a Frame via the Layout window:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Mark the Frame to which you want to add a new Control.
3.	Go the the menu bar and click "Window→Layout window" to open the Layout window for the selected Frame.
4.	Now go to the menu bar and open "Layout→Tools" to select the Control type you want to add the Frame.
5.	Next, move your cursor to the top left position where the Control shall be placed. Press the left mouse key, keep it pressed and enlarge the bounding box the correct size of your new Control. Release the mouse key.
6.	This will open the following user window to add the new Control:
7.	Assign a unique and recognizable name to the new Control.
8.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Control in the Layout view at the place and in the size defined with the bounding box. In the tree view of the Structure window, the new Control is be listed in the child node "Controls" of the relevant Frame. If needed you can now edit the attributes of the Control (see Section 5.9, "Controls").

Table 5-39 Add a new Control through the Layout window

5.8.6 Edit the attributes of a Control

Follow the below instructions to edit the attributes of an existing Control:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Control you want to edit.
3.	Still in the tree, open the child node "Controls" under "Frames" that contains the Control you want to edit.
4.	Now click the Control whose attributes you want to edit.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value" (see Section 5.9, "Controls"). If necessary, also edit the attributes and Instructions in the other child nodes of this Control.

Table 5-40 Edit the attributes of a Control

5.8.7 OScAR-Pro command templates

OScAR-Pro commands are created and edited in the child node "OScAR-Pro command templates" under the node "Frames" and, with the help of instructions (seeSection 5.11, "Instructions"), addressed to the OScAR-Pro server through the OScAR-Pro-TT Operator-Tool where they set off processes (broadcasts, conferences etc.).

You can create as many commands as you like.

The attributes of the OScAR-Pro command templates are equivalent to the editable Parameters of the corresponding Frame in the OScAR-Pro-TT Operator-Tool.

The attributes and child nodes of the node "OScAR-Pro command templates"

Depending on their type, OScAR-Pro command templates have different attributes and child nodes:

Attribute	Description
Global attributes	
Name	Edit field to enter the name of the OScAR-Pro command template.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Type	Combobox to specify the type of the OScAR-Pro command template. Depending on its type, a OScAR-Pro command templates can have further attributes. Here you can choose: • **BDC** to set off a broadcast or a broadcast hunt group, • **CON** to invoke a conference, • **ITL** to switch the info telephone profile that is currently active, • **SCN** to start a scenario, • **CALLWHI** to contact a telephone number through a Siemens Dial Assistant Interface (short WHI) or USB-CallBridge, • **CANCELWHI** to disconnect a call through a Siemens Call Assistant Interface or USB-CallBridge, • **SHOW_BDC** to output the window of an active broadcast in the OScAR-Pro-TT Operator-Tool, • **SHOW_CON**, to output the window of an active conference in the OScAR-Pro-TT Operator-Tool, or • **SET_PRM** to set the Parameters for the output of Process windows in the OScAR-Pro-TT Operator-Tool, • **KILLPRC** to end active processes (broadc. & conf.), • **KILLBDC** to end only specific active broadcasts selected on the basis of their ID, • **KILLCON** to end only specific active conferences selected on the basis of their ID.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the type "BDC"	
Display text	Edit field to enter the text that shall be output on the display of the handset of the called person. Here you can: • enter a text with up to 64 characters, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.
Dialing subscribers	Combobox to specify the call numbers that shall be dialed to contact a person. Here you can: • enter one of the following numbers: 1 = dial only 1st call number 2 = dial only 2nd call number 3 = dial 1st and 2nd call number 4 = dial only 3rd call number 5 = dial 1st and 3rd call number 6 = dial 2nd and 3rd call number 7 = dial 1st, 2nd and 3rd call number 8 = dial only 4th call number 9 = dial 1st and 4th call number 10 = dial 2nd and 4th call number 11 = dial 1st, 2nd and 4th call number 12 = dial 3rd and 4th call number 13 = dial 1st, 3rd and 4th call number 14 = dial 2nd, 3rd and 4th call number 15 = dial all call numbers, • assign a Constant, Parameter or Variable of the data type **byte**, or • assign the reference to a Control that has the data type **byte**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Cornet-N(Q) performance features	Combobox to define if Cornet-specific features shall be applied for hunt groups. Here you can: • select **0** if you do not want to use Cornet-N(Q)features, • select **1** to use Cornet-N(Q) features, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Monitor subscriber connection status	Combobox to define if you want the system to monitor the states of subscribers in hunt groups. Here you can: • select **0** if you do not want the system to monitor the states of subscribers, • select **1** to monitor the states of the subscribers, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Key confirmation	Combobox to define if you want the subscribers of hunt groups to confirm their acceptance of the call by pushing a key. Here you can: • select **0** for no request of key confirmation, • select **1** to use the request key conformation option, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**
High-priority broadcast	Combobox to specify for hunt groups if the broadcast shall be given a high-priority or with a low priority when activated. Here you can: • select **0** for a low priority broadcast, • select **1** for a high-priority broadcast, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Message text for TTV	Input field to enter the text of the message you want the system to convert via speech synthesis (TTV = **T**ext-**T**o-**V**oice) into an ad-hoc announcement and play in the broadcast. Here you can: • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.
OnMin	Editable combobox to enter the first value where you want the serial number range of reference to begin. Here you can: • enter a number between **0** and **255**, • assign a Constant, Parameter or Variable of the data type **byte**, or • assign the reference to a Control that has the data type **byte**.
OnMax	Editable combobox to enter the final value where you want the serial number range of reference to end. Here you can: • enter a number between **0** and **255**, • assign a Constant, Parameter or Variable of the data type **byte**, or • assign the reference to a Control that has the data type **byte**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Child nodes of the node "BDC"	
Broadcast IDs	List with up to 16 entries to enter the IDs of the broadcasts that need to be activated in an emergency situation. If this List consists of one ID only, the pertinent broadcast is launched with its administrated attributes. If the List, however, covers 2 or more IDs, the relevant broadcasts will be joined together in a so-called hunt group in keeping with the attributes that were defined for such a group. Here you can: • enter a valid ID with up to 4 digits, • assign a Constant, Parameter or Variable of the data type **bdc_id** through the selection field, or • assign the reference to a Control that has the data type **bdc_id**.
Standard announcement IDs	List with up to 16 entries to select and compose the standard announcement group that shall currently be used in the broadcast. Here you can: • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable, or • assign the reference to a Control that has the data type **msg_id**.
Group announcement IDs	List with up to 4 entries to define the additional announcement groups that shall currently be used in the broadcast. Here you can: • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable, or • assign the reference to a Control that has the data type **msg_id**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the type "CON"	
Conference ID	Editable combobox to define the ID of the conference that shall be convened. Here you can: • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable, or • assign the reference to a Control that has the data type **con_id**.
Dialing subscribers	Editable combobox to enter the telephone numbers at which the system shall contact a person. Here you can: • enter one of the following numbers: 1 = dial 1st call number only 2 = dial 2nd call number only 3 = dial 1st and 2nd call number, • use the selection field to assign a Constant, Parameter or Variable of the data type **byte**, or • assign the reference to a Control that has the data type **byte**.
Dialing parameters	Editable combobox to define if subscribers shall be dialed. Here you can: • enter **0** to choose that no subscribers are dialed, • enter **1** to choose that subscribers are dialed, • use the selection field to assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Additional attributes of the OScAR-Pro command "ITL"	
Info telephone ID	Editable combobox to enter the ID of the info telephone profile that shall be activated. Here you can: • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable of the data type **itl_id**, or • assign the reference to a Control that has the data type **itl_id**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the OScAR-Pro command "SCN"	
Scenario ID	Editable combobox to enter the ID of the scenario that shall be activated. Here you can: • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable of the data type **scn_id**, or • assign the reference to a Control that has the data type **scn_id**.
Additional attributes of the OScAR-Pro command "CALLWHI"	
WHI number	Editable combobox to enter the telephone number that shall be dialed. Here you can: • enter a call number with up to 24 digits, • use the selection field to assign a Constant, Parameter or Variable of the data type **phone_number**, or • assign the reference to a Control that has the data type **phone_number**.
Info text	Editable combobox to enter the name of the destination for the above WHI number. Here you can: • enter a call number with up to 24 digits, • use the selection field to assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.
Show local call dialog	Editable selection field to specify if the system shall output the local call dialog when dialing the WHI number. Here you can: • select **0** if the system shall NOT show the dialog, • select **1** if the system shall show the dialog, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the OScAR-Pro command "SET_PRM"	
Bring own broadcasts to top	Editable combobox to define if the windows of the user's own broadcast processes are automatically be brought to the front. Here you can: • enter **0** to keep Process windows in the background, • enter **1** to bring Process windows to the front, • use the selection field to assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Bring all other broadcasts to top	Editable combobox to define if the windows of other broadcasts processes are automatically be brought to the front. Here you can: • enter **0** to keep Process windows in the background, • enter **1** to bring the Process window to the front, • use the selection field to assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Bring own conferences to top	Editable combobox to define if the windows of the user's own conference processes are automatically be brought to the front. Here you can: • enter **0** to keep Process windows in the background, • enter **1** to bring Process windows to the front, • use the selection field to assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.
Bring all other conferences to top	Editable combobox to define if the windows of other conference processes are automatically be brought to the front. Here you can: • enter **0** to keep Process windows in the background, • enter **1** to bring Process windows to the front, • use the selection field to assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the Command "KILLPRC"	
Process context	Editable combobox to define the context in which the process you want to end is running. Here you can: • enter **0** to end processes started by any user, • enter **1** to end all processes that were NOT started by the present user, • enter **2** to end all processes that were started by the present user, • enter **3** to end all processes that were started by the present user via the OScAR-Pro-TT Operator-Tool, • enter **4** to end all processes that were started by the present user via the OpenScape Alarm Response Professional, • use the selection field to assign a Constant, a Parameter or a Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.
TAN	Editable combobox to define the TAN of the process you want to end. Here you can: • leave the entry blank to end ALL processes listed active in the "Process context", or • assign the reference to a Listbox that has the type "process".

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the Command "KILLBDC"	
Process context	Editable combobox to define the context in which the broadcast you want to end is running. Here you can: • enter **0** to end broadcasts started by any user, • enter **1** to end all broadcasts that were NOT started by the present user, • enter **2** to end all broadcasts that were started by the present user, • enter **3** to end all broadcasts that were started by the present user via the OScAR-Pro-TT Operator-Tool, • enter **4** to end all broadcasts that were started by the present user via the OpenScape Alarm Response Professional, • use the selection field to assign a Constant, a Parameter or a Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.
Broadcast ID	Editable combobox to define the ID of the broadcast you want to end. Here you can: • leave the entry blank to end ALL broadcasts listed active in the "Process context", or • enter a valid ID of a broadcast with up to 4 digits, • use the selection field to assign a Constant, a Parameter or a Variable of the data type **bdc_id**, or • assign the reference to a Control that has the data type **bdc_id**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

Attribute	Description
Additional attributes of the Command "KILLCON"	
Process context	Editable combobox to define the context in which the conference you want to end is running. Here you can: • enter **0** to end conferences started by any user, • enter **1** to end all conferences that were NOT started by the present user, • enter **2** to end all conferences that were started by the present user, • enter **3** to end all conferences that were started by the present user via the OScAR-Pro-TT Operator-Tool, • enter **4** to end all conferences that were started by the present user via the OpenScape Alarm Response Professional, • use the selection field to assign a Constant, a Parameter or a Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.
Conference ID	Editable combobox to define the ID of the conference you want to end. Here you can: • leave the entry blank to end ALL conferences listed active in the "Process context", or • enter a valid ID of a broadcast with up to 4 digits, • enter a valid ID with up to 4 digits, • use the selection field to assign a Constant, Parameter or Variable of the data type **con_id**, or • assign the reference to a Control that has the data type **con_id**.

Table 5-41 Attributes and child nodes of the node "OScAR-Pro command templates"

5.8.8 Add a new OScAR-Pro command template

Follow the below instructions to add a new OScAR-Pro command template to a Frame.

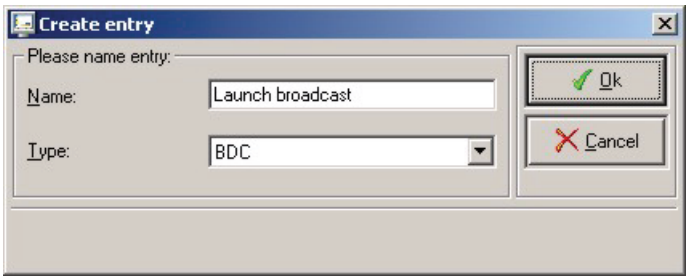
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new OScAR-Pro command template.
3.	Still in the tree, click the child node "OScAR-Pro command templates" (under the node "Frames".
4.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
5.	Give the new name for the new OScAR-Pro command template that is clear and distinct from the other templates in this Frame.
6.	Select the type for the OScAR-Pro command template.
7.	Finally, click **Ok** to close the window. The DCO-Designer outputs the newly created OScAR-Pro command template in the tree view of the Structure window, and there in the child node "OScAR-Pro command templates" under the node "Frames". If needed you can now edit the attributes of the new OScAR-Pro command template.

Table 5-42 Add a new OScAR-Pro command template

5.8.9 Edit the attributes of a OScAR-Pro command template

Follow the below instructions to edit the attributes of an already existing OScAR-Pro command template:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new OScAR-Pro command template.
3.	Still in the tree, click the child node "OScAR-Pro command templates" under "Frames".
4.	Select the OScAR-Pro command template that you want to edit.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-43 Edit the attributes of a OScAR-Pro command template

5.8.10 Add a new Function to a Frame

Follow the below instructions to add a new Function to a Frame:

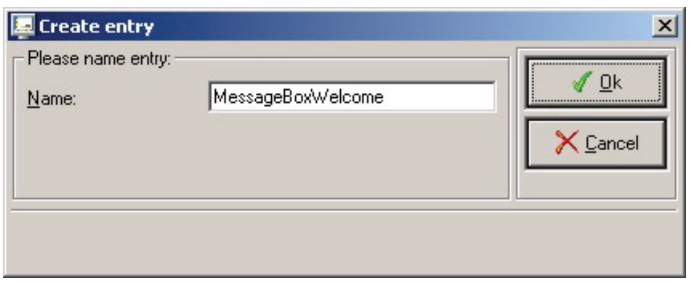
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new Function.
3.	Under the Frame you selected, open the child node "Functions" to add a new Function.
4.	Here you can choose from the nodes • „**On_Load**“, if you want the new Function to be executed whenever the Frame is loaded, or • „**On_Message**“, if you want the new Function to be invoked by instructions of the type „Broadcast-Message“ (see Section 5.11.8, "The Instruction "BroadcastMessage""), by double-clicking on a listbox entry or by selecting an entry in a combobox, • „**On_Timer**“, if you want the new Function to be invoked cyclic depending on the interval value (see Section 5.8.1, "The attributes and child nodes of the node "Frames"") of the page or • „**User**“ if you want the new Function you want to create only to be available when the Instructions of this Frame are invoked.
5.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
6.	Enter a name for the new Function that is clear and distinct in this Frame.
7.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Function in the tree structure of the Structure window, and there in the child nodes "On_Load", "On_Message", "On_Timer"or "User". If needed, you can now edit the attributes of the new Function and its Instructions.

Table 5-44 Add a new Function to a Frame

5.8.11 Edit the attributes of the Functions of a Frame

Follow the below instructions to edit the attributes of an existing Function of a Frame:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Function you want to edit.
3.	Now open the child node "Functions" that contains the Function you want to edit.
4.	Here you can choose between the child nodes: • „**On_Load**“, if you want the Function you want to edit also to be executed when the Frame is loaded, or • „**On_Message**“, if you want the new Function to be invoked by instructions of the type „Broadcast-Message“ (see Section 5.11.8, "The Instruction "BroadcastMessage""), by double-clicking on a listbox entry or by selecting an entry in a combobox, • „**On_Timer**“, if you want the new Function to be invoked cyclic depending on the interval value (see Section 5.8.1, "The attributes and child nodes of the node "Frames"") of the page or • „**User**“ if you want the Function you want to edit only to be available when the Instructions of this Frame are invoked.
5.	To edit the attributes of the Function, go to the list view and doubleclick the relevant item listed in the column "Value" (see Section 5.10.1, "The attributes and child nodes of Functions"). If needed, edit the Instructions of the Function (see Section 5.11, "Instructions").

Table 5-45 Edit the attributes of the Functions of a Frame

5.9 Controls

Controls are graphic object elements of a Frame with which the user makes entries, defines selections and activates Instructions.

For a detailed List of all Controls that are available in the DCO/Designer, please refer to Section 4.4, "Setup and application of the Layout window".

5.9.1 The use of Controls

The below table gives you an overview of the way in which the different Controls are used:

Attribute	**Description**
Static element	The "Static elements" are used to place info graphics and texts, e.g. a floor plan or site map, and to add symbols representing specific Functions and titles. Apart from the Static elements that can be added to the child node "Controls" under the node "Frame", every "Button" child node under the node "Controls" may have up to 4 own Static elements that are stored under the parent node "Button", and there in their respective "Static elements" child node.
Edit field	Use the "Edit field" to enter the numeric or alphanumeric values that are needed for the later operation , e.g. display texts that shall be output to the alerted subscribers during broadcasts.
Button	The Control "Button" is used to execute Functions triggered by the user, e.g. to activate broadcasts in OScAR-Pro. In addition to its attributes, every Buttons also has a child node that is used to administrate the Functions that shall be executed when the Button is pressed.
Checkbox	The "Checkbox" is used for 'Yes/No/True/False' and 'Set/Changed' arguments, e.g to define that the selected broadcasts are started individually or together in form of a hunt group.
Listbox	The "Listbox" is used to select an entry from a list of several entries, e.g. to choose a specific announcement from the global List of all announcements that are currently available. Entries in a Listbox can have different colors.

Table 5-46 Application of the Controls

Attribute	Description
Combobox	Just like the "Listbox", the "Combobox" is used to select an entry from a list of several entries, but with a more compact rendition. Before you can choose an entry, you must first open the global List by clicking the Button that is located on the right hand side of the Combobox .

Table 5-46 Application of the Controls

5.9.2 References to Controls

Just like Constants, Parameters, and Variables, the Controls:

- Edit field,
- Checkbox,
- Listbox, and
- Combobox

use an attribute to assign them to a data type (see Section 5.2, "The DCO data types and their value ranges").

For each Edit field, Listbox and Combobox the type is assigned individually, while check-boxes always have the data type **bool**.

This makes it possible to add references to these Controls for Instructions (see Section 5.11, "Instructions") and arguments (see Section 5.10.2, "Setup and syntax of conditions") and to read out their contents.

To do so, use the name of the Control and add a new declaration before the name.

For each Control use the corresponding declaration as described below:

Control	Declaration and description
Edit field	**(EDIT) <Name of the Edit field >** e.g. for an Edit field with the name "TelNumber": `(EDIT)TelNumber` A reference to an Edit field always outputs as result the content of the pertinent Edit field.
Checkbox	**(CHECKBOX) <Name of the Checkbox>** e.g for a Checkbox with the name "Huntgroup“: `(CHECKBOX)Huntgroup` A reference to a Checkbox always outputs as result the status of the pertinent Checkbox.
Listbox	**(LISTBOX) <Name of the Listbox>** e.g. for a Listbox with the name "Broadcasts": `(LISTBOX)Broadcasts` A reference to a Listbox always outputs as result the entries that were chosen for that Listbox.
Combobox	**(COMBOBOX) <Name of the Combobox>** e.g. for a Combobox with the name "Announcements": `(COMBOBOX)Announcements` A reference to a Combobox always outputs as result the entry that was chosen for that Combobox.

Table 5-47 Reference declarations for Controls

5.9.3 Attributes shared by all Controls

The below attributes are shared by all Controls:

Attribute	Description
Name	Edit field to enter the name of the Control. Select a name that is recognizable and unique among the Controls of a Frame.
Links Top Width Height	Editable comboboxes to define the left and upper (top) margin, as well as the width and the height in pixels. Here you can: • enter a numeric value or • assign a Constant, Parameter or Variable of the data type **int**. The width, height and the distance to the left and top border can be edited during the execution of the DCO-Script for: • Static elements with the command„The Instruction "SetStaticRect"“, • Edit fields with the command „The Instruction "SetEditRect"“, • Buttons with the command „The Instruction "SetButtonRect"“, • Static elements placed on a Button with the command „The Instruction "SetButtonStaticRect"“, • Checkboxes with the command „The Instruction "SetCheckBoxRect"“, • Listboxes with the command „The Instruction "SetListBoxRect"“, • Comboboxes with the command „The Instruction "SetComboBoxRect"“.

Table 5-48 Attributes shared by all Controls

Attribute	Description
Background color	Editable combobox to define the background color for a Control. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The background color can be edited during the execution of the DCO-Script for: • Static elements with the command „The Instruction "SetStaticBackColor"“, • Edit fields with the command „The Instructions "SetEditBackColor"“, • Buttons with the command „The Instruction "SetButtonColor"“, • Static elements placed on a Button with the command „The Instruction "SetButtonStaticBackColor"“, • Checkboxes with the command „The Instruction "SetCheckBoxBackColor"“, • Listboxes with the command „The Instruction "SetListBoxBackColor"“, • Comboboxes with the command „The Instruction "SetComboBoxBackColor"“.

Table 5-48 Attributes shared by all Controls

Attribute	Description
Status	Editable combobox to define if a Control is rendered and how it is used. Here you can: • **0** to hide the Control, • **1** to show the Control and enable entries, • **2** to show the Control and block entries, or • a Constant, Parameter or Variable of the data type **uint**. The status can be edited while the DCO-Script is being executed for: • Static elements with the command„The Instruction "SetStaticStatus"“, • Edit fields with the command „The Instruction "SetEditStatus"“, • Buttons with the command „The Instruction "SetButtonStatus"“, • Static elements placed on a Button with the command „The Instruction "SetButtonStaticStatus"“, • Checkboxes with the command „The Instruction "SetCheckBoxStatus"“, • Listboxes with the command „The Instructions "SetListBoxStatus"“, • Comboboxes with the command „The Instruction "SetComboBoxStatus"“.

Table 5-48 Attributes shared by all Controls

5.9.4 Child nodes and special attributes of Static elements

Special attributes of Static elements

Static elements have the following additional attributes:

Attribute	Description
Border style	Drop down list to choose the style of the border surrounding the Static element. Here you can: • **none**, if you do not want the Static element to have a border. • **simple**, if you want the Static element to be surrounded by a simple black line.
Border width	Editable combobox to define the width of the Frame around the Static element in pixels. Here you can: • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**.
Border color	Editable combobox to define the color of the Frame around the Static element. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color of the border around the Static element can be changed during the execution of the DCO-Script for: • Static elements with the command „„The Instruction "SetStaticBorderColor"" • Static elements placed on a Button with the command „The Instruction "SetButtonStaticBorderColor"".

Table 5-49 Special attributes of Static elements

The child nodes of Static elements

Static elements have the following child nodes:

Attribute	Description
Image	This node is used to administrate the attributes of the image of the Static element.
Caption	This node is used to administrate the attributes of the text for the Static element.

Table 5-50 The child nodes of Static elements

Attributes of the child node "Image" of a Static element

The images of Static elements have the following attributes:

Attribute	Description
File name	Editable combobox to select the image assigned to a Static element. Here you can: • enter a file name from the List of images, • select an image in the user window that opens as you click the entry "Select image..." in the drop down list (see Section 4.6.2, "Administration of the Image lists"), or • assign a Constant, Parameter or Variable of the data type **string**. The image assigned to the Static element can be replaced during the execution of the DCO-Script for: • a Static element with the command „The Instruction "SetStaticPictureName"“,, • Static elements placed on a Button with the command „The Instruction "SetButtonStaticPictureName"“.

Table 5-51 Attributes of the child node "Image" of a Static element

Attribute	Description
Position	Drop down list to define the position of the image in the Static element. Here you can: • **left, top** to place the image in the upper left corner of the Static element • **h-center, top** to place the image at the upper border of the Static element and there in horizontally in the center. • **right, top** to place the image in the upper right corner of the Static element. • **left, v-center** to place the image at the left border of the Static element, and there vertically in the center. • **h-center, v-center** to position the image in the vertical and horizontal center of the Static element. • **right, v-center** to place the image at the right border of the Static element, and there vertically in the center. • **left, bottom** to place the image in the lower left corner of the Static element. • **h-center, bottom** to place the image at the lower border of the Static element, and there horizontally in the center. • **right, bottom** to place the image in the lower right corner of the Static element. • or assign a Constant, Parameter or Variable of the data type **string**. The position of the image can be edited during the execution of the DCO-Script for: • Static elements with the command „The Instruction "SetStaticPicturePos"“ • Static elements placed on a Button with the command „The Instruction "SetButtonStaticPicturePos"“. • .

Table 5-51 Attributes of the child node "Image" of a Static element

Attribute	Description
Scaling in %	Editable combobox to define the scaling factor in % for the image assigned to the Static element. Here you can: • enter a scaling factor in %, • select **proportional** to align the image with the size of the Static element in keeping with the Static element's height/ width proportion, or • select **unproportional** to align the image with the full scale of the Static element's surface irrespective of the height/width proportion. The position of the image assigned to a Static element can be changed during the execution of the DCO-Script for: • a Static element with the command „The Instruction "SetStaticPictureScale"“,, • Static elements placed on a Button with the command „The Instruction "SetButtonStaticPictureScale"“.

Table 5-51 Attributes of the child node "Image" of a Static element

Attributes of the child node "Caption" of a Static element

The captions of Static elements have the following attributes:

Attribute	Description
Text	Edit field to enter the text to appear on the Static element. The text entered for a Static element can be changed during the execution of the DCO-Script with the command „The Instruction "SetStaticText"“.
Text color	Editable combobox to choose the color for the text of the Static element. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color of the text of a Static element can be changed during the execution of the DCO-Script with the command „The Instruction "SetStaticTextColor"“.

Table 5-52 Attributes of the child node "Caption" of a Static element

Attribute	Description
Position	Drop down list to select the position for the text that shall appear on the Static element. Here you can: • **left, top** to place the image in the upper left corner of the Static element • **h-center, top** to place the image at the upper border of the Static element and there in horizontally in the center. • **right, top** to place the image in the upper right corner of the Static element. • **left, v-center** to place the image at the left border of the Static element, and there vertically in the center. • **h-center, v-center** to position the image in the vertical and horizontal center of the Static element. • **right, v-center** to place the image at the right border of the Static element, and there vertically in the center. • **left, bottom** to place the image in the lower left corner of the Static element. • **h-center, bottom** to place the image at the lower border of the Static element, and there horizontally in the center. • **right, bottom** to place the image in the lower right corner of the Static element. • or assign a Constant, Parameter or Variable of the data type **string**. The position of the text that shall be output on a Static element can edited during the execution of the DCO-Script with the command„The Instruction "SetStaticTextPosition"“.
Font	Field indicating the font currently used for the text of the Static element. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").

Table 5-52 Attributes of the child node "Caption" of a Static element

5.9.5 Special attributes of Edit fields

Edit fields have the following additional attributes:

Attribute	Description
Font	Field indicating the font currently selected for the text of the Edit field. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").
Border style	Combobox to choose the style of the border surrounding the Edit field. Here you can: • **none,** if you do not want the Edit field to have a border, • **simple**, if you want the Edit field to be surrounded by a simple black line, or • **sunken**, if you want the Edit field to have a two-color border.
Text color	Editable combobox to choose the color for the text of the Edit field. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color for the text (see Section 4.6.5, "Edit colors"), r • assign a Constant, Parameter or Variable of the data type **color**. The color of the text of an Edit field can be edited during the execution of the DCO-Script with the command „The Instruction "SetEditTextColor"“.
Text	Editable combobox to enter a default text for the Edit field. Here you can: • a string in keeping with the type that is selected for the Edit field (see below) or • assign a Constant, Parameter or Variable of the data type **string**. The default text of an Edit field can be edited during the execution of the DCO-Script with the command „The Instruction "SetEditText"“.

Table 5-53 Special attributes of Edit fields

Attribute	**Description**
Multiple lines	Combobox to specify if the Edit field shall have one or more lines. Here you can: • **0** if you want the Edit field to have one line only, • **1** if you want the Edit field to have multiple lines, or • assign a Constant, Parameter or Variable of the data type **bool**.
Type	Combobox to define the type of the Edit field (see Section 5.2, "The DCO data types and their value ranges").

Table 5-53 Special attributes of Edit fields

5.9.6 Special attributes and child nodes of Buttons

Special attributes of Buttons

Buttons have the following additional attributes:

Attribute	Description
Layout	Combobox to define how the the text and image shall be organized. Here you can: • **Image + Text (horizontal)**, to position first the image and then the text from left to right. • **Image + Text (vertical)**, to position first the image and then the text from top to bottom. • **Text + Image (horizontal)**, to position first the text and then the image from left to right. • **Text + Image (vertical)**, to position first the text and then the image from top to bottom.
Text	Editable combobox to specify the Button title. Here you can: • enter up to 256 characters as the Button title or • assign a Constant, Parameter or Variable of the data type **string**. The title of a Button can be edited during the execution of the DCO-Script with the command„The Instruction "SetButton-Text"“. **Note:** • If you add a "**&**" sign to your string, the character that comes after the sign is automatically underlined. For the DCO-Designer to output the "**&**" sign on a Button, always make sure you enter the sign twice (e.g. **&&**). • If you want the text on your Button to be output in several lines, you can force a shift return by entering \n.
Font	Field indicating the font currently used for the title of the Button. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").

Table 5-54 Special attributes of Buttons

Attribute	Description
Text color	Editable combobox to choose the color for the title of the Button. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color of the title of the Button can be changed during the execution of the DCO-Script with the command „The Instruction "SetButtonTextColor"“.
Image scaling in %	Editable combobox to define the scaling factor for the image on a Button. Here you can: • enter a scaling factor in %, • select **proportional** to align the image with the size of the Button in keeping with the Button's height/width proportion, or • select **unproportional** to align the image with the full scale of the Static element irrespective of the actual height/width proportion. The image assigned to a Button can also be scaled during the execution of the DCO-Script with the command „The Instruction "SetButtonPictureScal"“.
Image	Editable combobox to specify the image assigned to a Button. Here you can: • enter a file name from the List of images, • select an image in the user window that opens as you click the entry "Select image..." in the drop down list (see Section 4.6.2, "Administration of the Image lists"), or • assign a Constant, Parameter or Variable of the data type **string**. The image assigned to a Button can be changed during the execution of the DCO-Script with the command „The Instruction "SetButtonPicture"“.

Table 5-54 Special attributes of Buttons

The child nodes of Buttons

Buttons have the following child nodes:

Child node	Description
Functions	This node serves to administrate the Functions of the Button. For a detailed description of the Functions, please see the Section 5.10, "Functions".
Static elements	Apart from the actual attributes a Button can also have up to 4 Static elements that are output on it. This makes it possible to position several texts in different colors or fonts and/or several images on one Button. For a detailed descriptions of Static elements please see Section 5.9.4, "Child nodes and special attributes of Static elements".

Table 5-55 The child nodes of Buttons

5.9.7 Add Functions to a Button

Follow the below instructions to add a new Function to a Button:

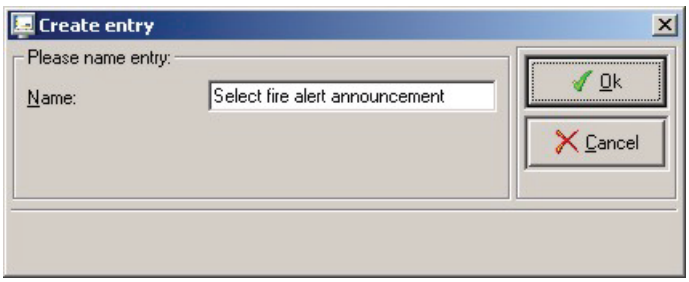
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button to which you want to add a new Function.
3.	Now open the child node "Controls".
4.	Open the Button to which you want to add the new Function.
5.	Click the child node "Functions".
6.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
7.	Assign a unique and recognizable name to the new Function.
8.	Finally, click **Ok** to close the window. The DCO-Designer outputs the newly added Function under the child node "Functions" of the parent Button. If necessary, you can now edit the attributes of the Function (see Section 5.10.1, "The attributes and child nodes of Functions"). If needed, edit the Instructions of the Function (see Section 5.11, "Instructions".

Table 5-56 Add a new Function to a Button

5.9.8 Edit the attributes of the Functions of a Button

Follow the below instructions to edit the attributes of an existing Function on a Button :

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button whose Function you want to edit.
3.	Now open the child node "Controls".
4.	Open the Button whose Function you want to edit.
5.	Click the child node "Functions".
6.	Select the Function whose attributes you want to edit.
7.	To edit the attributes of the Function, go to the list view and doubleclick the relevant item listed in the column "Value" (see Section 5.10.1, "The attributes and child nodes of Functions"). If needed, edit the Instructions of the Function (see Section 5.11, "Instructions".

Table 5-57 Edit the attributes of the Functions of a Button

5.9.9 Add Static elements to a Button

Follow the below instructions to add Static elements to a Button:

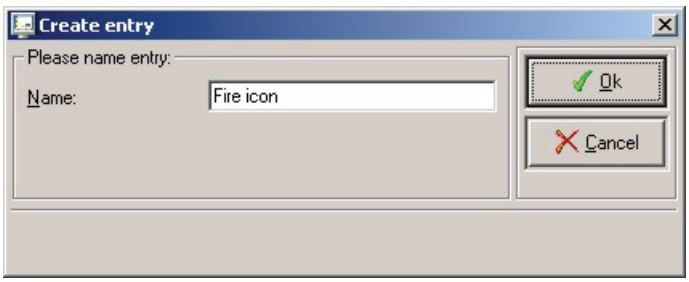
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button to which you want to add a new Static element.
3.	Now open the child node "Controls".
4.	Open the Button to which you want to add a new Static element.
5.	Click the child node "Static elements".
6.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
7.	Assign a unique and recognizable name to the new Static element.
8.	Finally, click **Ok** to close the window. The DCO-Designer outputs the new Static element in the tree view of the Structure window, and there in the child node "Static element" of the pertinent Button. If necessary, you can now edit the attributes of the Static element (see Section 5.9.4, "Child nodes and special attributes of Static elements").

Table 5-58 Add a new Function to a Button

5.9.10 Edit the attributes of the Static elements of a Button

Follow the below instructions to edit the attributes of an existing Static element of a Button:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button whose Static element you want to edit.
3.	Now open the child node "Controls".
4.	Open the Button whose Static element you want to edit.
5.	Click the child node "Static elements".
6.	Select the Static element whose attributes you want to edit.
7.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value" (see Section 5.9.4, "Child nodes and special attributes of Static elements").

Table 5-59 Edit the attributes of the Static elements of a Button

5.9.11 Special attributes of Checkboxes

Checkboxes have the following additional attributes:

Attribute	Description
Font	Field indicating the font currently used for the title of the Checkbox. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").
Border style	Drop down list to choose the style of the border surrounding the Checkbox. Here you can: • **none,** if you do not want the Checkbox to have a border, • **simple**, if you want the Checkbox to be surrounded by a simple black line, or • **sunken**, if you want the Checkbox to have a two-color border.
Text color	Editable combobox to choose the color for the title of the Checkbox. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color assigned to a Checkbox title can be changed during the execution of the DCO-Script with the command „The Instruction "SetCheckBoxTextColor"“.

Table 5-60 Special attributes of Checkboxes

Attribute	Description
Text	Editable combobox to define the title of the Checkbox. Here you can: • enter up to 256 characters as Checkbox title or • assign a Constant, Parameter or Variable of the data type **string**. The title of a Checkbox can be changed during the execution of the DCO-Script with the command „The Instruction "Set-CheckBoxCaption"“. **Note:** If you add a "**&**" sign to your string, the character that comes after the sign is automatically underlined. For the DCO-Designer to output the "**&**" sign on a Checkbox, always make sure you enter the sign twice (e.g. **&&**).
State	Combobox to define if the Button is marked. Here you can: • choose **0** to remove the marking from the selected Checkbox, • **1** to mark a Checkbox, or • assign a Constant, Parameter or Variable of the data type **bool**. The state of a Checkbox can be changed during the execution of the DCO-Script with the command „The Instruction "Set-CheckBoxState"“.

Table 5-60 Special attributes of Checkboxes

5.9.12 Child nodes and special attributes of Listboxes

Listboxes have the following additional attributes:

Attribute	Description
Font	Field indicating the font currently used for the entries of the Listbox. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").
Text color	Editable combobox to specify the color in which the entry shall be rendered in a Listbox entry (ignored in Comboboxes). Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color of the general entries of Listboxes can be changed during the execution of the DCO-Script with the command „The Instruction "SetListBoxTextColor"“.
Border style	Drop down list to choose the style of the border surrounding the Listbox. Here you can: • **none,** if you do not want the Listbox to have a border, • **simple**, if you want the Listbox to be surrounded by a simple black line, or • **sunken**, if you want the Listbox to have a two-color border.
Type	The selection field to define the data type of the Listbox (see Section 5.2, "The DCO data types and their value ranges"). Listboxes have the additional type "pro-cess". If a Listbox is of this type, it can also be filled using the Data lists and Filters with entries from the OScAR-Pro-TT Operator-Tool.

Table 5-61 Special attributes of Listbox

Attribute	Description
Blink interval	Editable combobox to specify the interval in milliseconds in which the data elements of Listboxes blink (1000 milliseconds = 1 seconds). Here you can: • enter **-1** to use the interval of the parent Frame, • enter an integer, or • assign a Constant, Parameter or Variable of the data type **int**. The blink interval of a Listbox can be changed during the execution of the DCO-Script with the command „The Instruction "SetListBoxBlinkTime"“.
Special attributes of the type "process"	
TAN	Combobox to define the relation between several Listboxes of the type "process". Here you can: • **-1** to retain all existing entries or • a reference to a Listbox that has the type **process,** If you enter a reference to a Listbox, the "TAN" will refer to the entry selected for that Listbox. It is this entry that will generally be applied when querying subordinate process information, e.g. the subscribers of a broadcast marked in another Listbox.
Process colors	The field indicating the selected process color. In this line, make a doubleclick under the column "Value" to open the user window in which you can define the individual process colors (see Section 4.6.3, "Process colors and Standard colors for process lists"). If no individual process colors are defined for the Listbox, the regular standard colors will be used.

Table 5-61 Special attributes of Listbox

The child nodes of Listboxes

Depending on the selected type, Listboxes have the following child nodes:

Child node	Description
For the type "process"	
Process filters	This node serves to administrate the Process filters. Each Filter that is created is listed as a new child node. The purpose of Process filters is to control or restrict the way in which Data lists are filled via the OScAR-Pro-TT Operator-Tool. Contrary to the Filters of Lists, it is only active processes that are considered here.
For all other types	
Data elements	This child node can contain a list of data elements that are output in the Listbox itself as entries. For a detailed description of the attributes of the data elements, please see the Section 5.7.1, "The attributes and child nodes of the node "Data lists"".

Table 5-62 The child nodes of Listboxes

The attributes of Process filters:

Child node	Description
Name	Edit field to enter the name of the process Filter. Select a name that is recognizable and unique in this list.
Type	Combobox to specify what types of active process are selected. Here you can: • PROCESS_BDC to filter all active broadcasts. • PROCESS_BDCMBR to filter all subscribers of an active broadcast. • PROCESS_CON to filter all active conferences. • PROCESS_CONMBR to filter all subscribers of an active conference. • PROCESS_IT to fitter the info telephone profile that is currently active. The filter options of the attribute "State" change in correlation with the type that is selected here.

Table 5-63 Attributes of Process filters

Child node	Description
For the types "PROCESS_BDC" and "PROCESS_CON"	
Process status	Here you can: • **0** to filter only processes who are still active and being processed, • **1** to filter processes whose processing has already been completed but who still have windows in the OScAR-Pro-TT Operator-Tool, • **-1** to filter all processes (active and completed) that have windows in the OScAR-Pro-TT Operator-Tool, or • a Constant, Parameter or Variable of the data type int.
For the "ROCESS_BDCMBR"	
Process status	Here you can: • **-1** to filter all subscribers, • **0** to filter only subscribers who are not yet being processed, • **1** to filter only subscribers who are momentarily in the process of being called, • **2** to filter only subscribers who could either not be reached or who confirmed negative, • **3** to filter only subscribers who are currently being played the broadcast announcement, • **4** to filter only subscribers for whom the system is currently waiting to enter their PIN, • **5** to filter only subscribers who were either reached or who confirmed positive, • **6** to filter only subscribers whose dial-up by the system is momentarily in a pause, • **7** to filter only subscribers whose processing has not been fully completed, • **256** to filter only subscribers for whom no final result has yet been received (i.e. not 2 or 7), or • a Constant, Parameter or Variable of the data type int.

Table 5-63 Attributes of Process filters

Child node	Description
For the type "PROCESS_CONMBR"	
Process status	Here you can: • **-1** to filter all subscribers, • **1** to filter only subscribers whose processing has not started or whose dial-up by the system is momentarily in a pause, • **2** to filter only subscribers who are momentarily in the process of being called, • **3** to filter only subscribers who could not be reached, • **4** to filter only subscribers who are currently being receiving the welcome message, • **5** to filter only subscribers for whom the welcome message is already over, • **6** to filter only subscribers who have switched themselves to mute, • **8** to filter only subscribers who are participating in the conference passively (i.e. who do not have the right to speak), • **10** to filter only subscribers who are participating in the conference actively (i.e. who have the right to speak), • **11** to filter only subscribers who are currently being parked, i.e. who have neither the right to speak nor to listen to the active conference, and who are being played an announcement instead, • **256** to filter only subscribers who are participating in the conference actively (i.e. 6 and 11), • **257** to filter only subscribers who are otherwise participating in the conference (i.e. 8 and 11), • **258** to filter only subscribers who are not yet participating in the conference, or • a Constant, Parameter or Variable of the data type int.

Table 5-63 Attributes of Process filters

5.9.13 Double-click events of Listboxes

Double-clicking on a listbox entry internally leads to sending a message (also see Section 5.11.8, "The Instruction "BroadcastMessage"") though it is only processed on the page the listbox is located on. The message sent is processed by the function with the same name as the listbox in branch “On_Message“.

5.9.14 Add new Process filters to Listboxes

Please bear in mind that Process filters can only be added to a Listbox if the Listbox has the type "process".

Follow the below instructions to create a new process Filter for a Listbox:

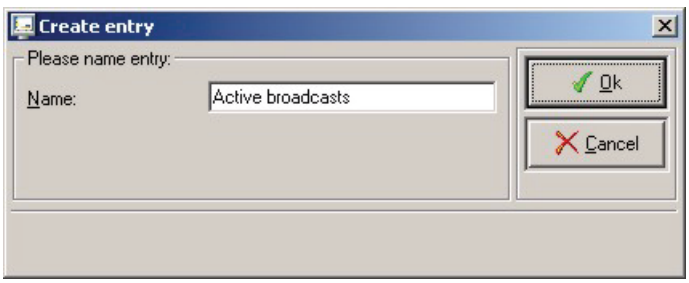
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Listbox to which you want to add a new new process Filter.
3.	Now open the child node "Controls".
4.	Open the Listbox to which you want to add a new process Filter.
5.	Click the child node "Process Filter".
6.	Now go to the menu bar and select "Edit→New". This will open the below user window to add the new process Filter. 
7.	Assign a unique and recognizable name to the new process Filter.
8.	Finally, click **Ok** to close the window. The DCO-Designer outputs the newly added process Filter in the tree view of the Structure window, and there in the child node "Process Filter" of the pertinent Listbox. If needed, you can now edit the attributes of the process Filter.

Table 5-64 Add Process filters to a Listbox

5.9.15 Edit the attributes of Process filters

Follow the below instructions to edit the attributes of an existing process Filter:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Listbox whose Process filters you want to edit.
3.	Now open the child node "Controls".
4.	Open the Listbox whose Process filters you want to edit.
5.	Now click the child node "Process filters".
6.	Select the process Filter whose attributes you want to edit.
7.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-65 Edit the attributes of the Process filters of a Listbox

5.9.16 The child nodes and special attributes of Comboboxes

Comboboxes have the following additional attributes:

Attribute	Description
Font	Field indicating the font that is currently used for the entries in the Combobox. To edit the font, font size or font style, simply make a double-click on this line to open the corresponding user window with the name "Font" (see Section 4.6.4, "Edit fonts").
Text color	Editable combobox to specify the general color for entries in the Combobox. Here you can: • enter a color value, • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), or • assign a Constant, Parameter or Variable of the data type **color**. The color of the entries in a Combobox can be changed during the execution of the DCO-Script with the command „The Instruction "SetComboBoxTextColor"“.
Type	Combobox to define the data type for the Combobox (see Section 5.2, "The DCO data types and their value ranges").

Table 5-66 Special attributes of Comboboxes

The child nodes of Comboboxes

Each Combobox has the following child node:

Child node	Description
Data elements	This child node can contain a list of data elements that are output in the Combobox itself as entries. For a detailed description of the attributes of the data elements, please see the Section 5.7.1, "The attributes and child nodes of the node "Data lists"".

Table 5-67 The child nodes of Comboboxes

5.9.17 Selection events of Comboboxes

Selecting a combobox entry internally leadts to sending a message (also see Section 5.11.8, "The Instruction "BroadcastMessage"") though it is only processed on the page the combobox is located on. The message sent is processed by the function with the same name as the combobox in branch “On_Message“.

5.10 Functions

The node "Functions" serves to group a list of Instructions (see Section 5.11, "Instructions") that shall be carried out during the course of the DCO-Script.

Use "Condition" and "Messagebox" to specify if the Instructions of the Function are executed.

Only Frames and Buttons own and/or use Functions.

For Buttons, the Functions are invoked in the order in which they are numbered under the column "Index".

To change the order of the Functions (for Frames and Buttons), go to the menu bar of the Structure window and click "Edit→Move up" and/or "Edit→Move down".

5.10.1 The attributes and child nodes of Functions

Attributes of Functions

Functions have the following attributes:

Attribute	Description
Name	Edit field to enter a recognizable and unique name for the Functions. Please bear in mind that the name must be unique among the other Functions of the Frame or Button.
Condition	Edit field to enter a logical algorithm that is verified when the Function is invoked. The Instructions of the Function are only performed if this value check meets with the result "**TRUE**" or "**1**".

Table 5-68 Attributes of Functions

Attribute	Description
Messagebox	Edit field to enter a text for amessage box with the buttons **Yes** and **No**. The message box is output to the user whenever the corresponding Function is invoked and the Function's Instructions are only executed after the query in this window is confirmed with "**Yes**". Example of a messagebox

Table 5-68 Attributes of Functions

Note:
If both attributes "Condition" and "Messagebox" are filled for a Function, the message box will only be output if the prior verification of the condition met with the result TRUE.

The child nodes of the node "Functions"

Functions have the following child nodes:

Child node	Description
Instructions	This node serves to administrate the Instructions of Functions (see Section 5.10, "Functions").

Table 5-69 The child nodes of the node "Functions"

5.10.2 Setup and syntax of conditions

General

A condition consists of at least one operation that, in return, comprises operators and one or two operands.

The logical connection of the operands based on theoperators yields a Boolean result either as **TRUE** or **1,** or as **UNTRUE** or **0**.

Operands can be:

- Constants,
- Parameters,
- Variables,
- Controls, or
- fixed numeric values and texts (texts are output in between inverted commas)

.

An operand can also be an operation in parenthesis.

Syntax

Variables must be set in between **$** signs, Constants and Parameters in between **%%** signs.

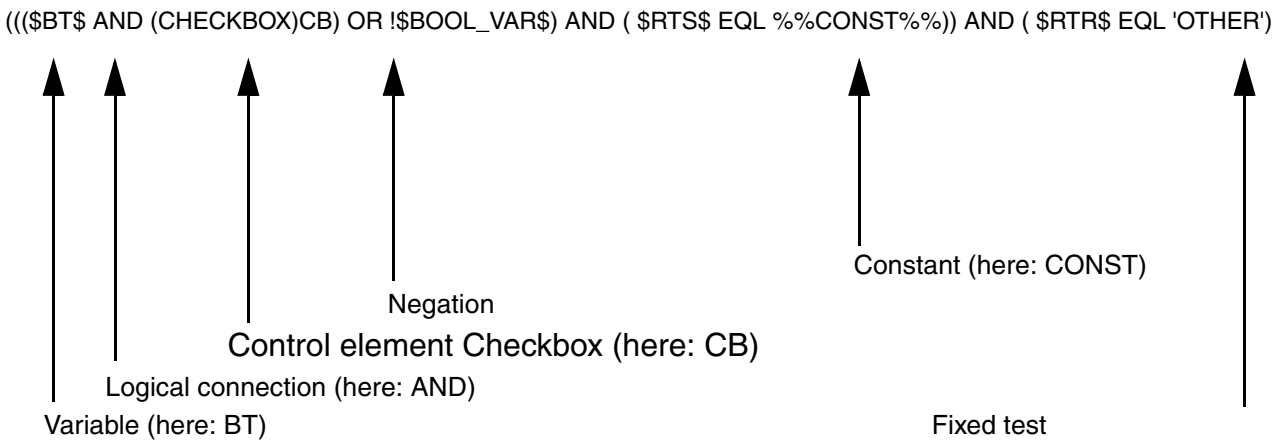
If you want to use Controls, please be careful to add a corresponding reference (see Section 5.9.2, "References to Controls").

Operators

The following operators can be used in conditions:

Operators	No. of operands	Example	Description
!	1	**!** VAR_A	Negation
GT	2	VAR_A GT VAR_B	Greater Than
LT	2	VAR_A LT VAR_B	Less Than
GET	2	VAR_A GET VAR_B	Greater than or Equal To
LET	2	VAR_A LET VAR_B	Less than or Equal To
EQL	2	VAR_A EQL VAR_B	Same as (EQuaL)
UEQ	2	VAR_A UEQ VAR_B	UnEQual
AND	2	VAR_A AND VAR_B	Logical 'and' connection (AND)
OR	2	VAR_A OR VAR_B	logical 'or' connection (OR)

Example of a condition with several elements


((((BT AND (CHECKBOX)CB) OR !$BOOL_VAR$) AND (RTS EQL %%CONST%%)) AND (RTR EQL 'OTHER')
Constant (here: CONST)
Negation
Control element Checkbox (here: CB)
Logical connection (here: AND)
Variable (here: BT)
Fixed test

Note
Before the Functions are executed, a copy is made of the content of each Variable that is used in a condition.
If a Variable is edited within the Functions, the changes will only enter into effect when the conditions are verified again during the next execution of the Functions. This does not apply to Functions that are invoked with the command „The Instruction "Call"“.

Example:
A Button has the Functions `func_1` and `func_2`. In addition, a Variable `Number` was created with type int and the initial value `2`.

The Function `func_1` has the condition `($Number$ EQU 2)` and the Instructions to set the Variable `Number` to the value `5`.

The Function `func_2` has the condition `($Number$ UEQ 2)` and the Instructions to set the Variable `Number` to the value `2`.

The user presses the Button and thereby initiates the execution phase.
The Function `func_1` is executed. The Function `func_2`, however, is not performed as the condition is checking a copy of the Variable `number` which still has the value `2`.

When the Button is pressed a second time, the `func_2` is executed but the `func_1` not as the copy of the Variable `number` now has the value `5`.

5.11 Instructions

Instructions are orders with which the system responds to user inputs and that help to control the sequence of the DCO-Script.

The Instructions are administrated under Functions (see Section 5.10, "Functions"), with each Functions able to have an unlimited number of Instructions.

Within the Functions, the Instructions are performed in the order in which they are numbered under the column "Index".

To change the order of the Instructions, go to the menu bar of the Structure window and click "Edit→Move up" and/or "Edit→Move down".

5.11.1 Arguments of Instructions

Please note that Instructions do not have attributes but so-called arguments. The number and type of the arguments that are available differ from Instruction to Instruction and are described in detail below.

5.11.2 Overview of Instructions

The below table summarizes the Instructions that are available in the system and groups them according to their logic proportion:

Instruction	Description
Control Instructions	
BroadcastMessage	Sends a message to the own page and i. a. to a correlating page (e.g. assigned toolbar).
The Instruction "Call"	Triggers Functions.
The Instruction "Execute"	Starts and Controls OScAR-Pro processes and queries them.
The Instruction "GetBroadcasts"	Filters all administrated broadcasts from OScAR-Pro.
The Instruction "GetConferences"	Filters all administrated conferences from OScAR-Pro.
The Instruction "GetInfotelephones"	Filters all administrated info telephone profiles from OScAR-Pro.
The Instruction "GetMessages"	Filters all administrated announcements from OScAR-Pro.
The Instruction "GetScenarios"	Filters all administrated scenarios from OScAR-Pro.

Table 5-70 Overview of Instructions

Instruction	Description
The Instruction "GotoFrame"	Invokes another Frame.
Instructions to set Variables	
The Instruction "SetCheckBoxToVariable"	Sets a Variable to the state of a Checkbox.
The Instruction "SetComboToVariable"	Sets a Variable to the selected Combobox entry.
The Instruction "SetEditToVariable"	Sets a Variable to the content of an Edit field.
The Instruction "SetListBoxSelectionToVariable"	Sets a Variable to the selected Listbox entry.
The Instruction "SetListBoxToVariable"	Copies all List elements of a Listbox to a Data list.
The Instruction "SetVariable"	Set a Variable to a certain value.
Instructions to change the attributes of Frames	
The Instruction "SetFrameColor"	Changes the background color.
Instructions for Static elements	
The Instruction "SetStaticBackColor"	Changes the background color.
The Instruction "SetStaticBorderColor"	Changes the color of the Frame around an element.
The Instruction "SetStaticPictureName"	Changes the assigned image.
The Instruction "SetStaticPicturePos"	Changes the positioning of the image.
The Instruction "SetStaticPictureScale"	Changes the scaling of the image.
The Instruction "SetStaticRect"	Changes the position and size.
The Instruction "SetStaticStatus"	Changes the output and editing.
The Instruction "SetStaticText"	Changes the text.
The Instruction "SetStaticTextColor"	Changes the text color.

Table 5-70 Overview of Instructions

Instruction	Description
The Instruction "SetStaticText-Position"	Changes the positioning of the text.
Instructions for Edit fields	
The Instruction "OffEditBack-ColorBlink"	Turns the background blinking off.
The Instruction "OffEditText-ColorBlink"	Turns the blinking of the text off.
The Instructions "SetEditBack-Color"	Changes the background color.
The Instruction "SetEditBack-ColorBlink"	Turns the background blinking on.
The Instruction "SetEditRect"	Changes the position and size.
The Instruction "SetEditStatus"	Changes the output and editing.
The Instruction "SetEditText"	Changes the content.
The Instruction "SetEditText-Color"	Changes the color of the content.
The Instruction "SetEditText-ColorBlink"	Turns the blinking of the content on.
The Instruction "SetEditToVari-able"	Sets a Variable to the content.
Instructions for Buttons	
The Instruction "OffButton-Blink"	Turns the blinking off.
The Instruction "SetButton-Blink"	Turns the blinking on.
The Instruction "SetButtonCol-or"	Changes the color of the Button.
The Instruction "SetButtonPic-ture"	Changes the assigned image.
The Instruction "SetButtonPic-tureScal"	Changes the scaling of the image.
The Instruction "SetButton-Rect"	Changes the position and size.

Table 5-70 Overview of Instructions

Instruction	Description
The Instruction "SetButtonStaticBackColor"	Changes the background color of one of the Static elements of a Button.
The Instruction "SetButtonStaticBorderColor"	Changes the color of the Frame that surrounds one of the Static elements of a Button.
The Instruction "SetButtonStaticPictureName"	Changes the image assigned to one of the Static elements of a Button.
The Instruction "SetButtonStaticPicturePos"	Changes the positioning of the image assigned to one of the Static elements of a Button.
The Instruction "SetButtonStaticPictureScale"	Changes the scaling of the image assigned to one of the Static elements of a Button.
The Instruction "SetButtonStaticStatus"	Changes the way in which one of the Static elements of a Button is output and edited.
The Instruction "SetButtonStaticRect"	Changes the position and size of one of the Static elements of a Button.
The Instruction "SetButtonStaticText"	Changes the text of one of the Static elements of a Button.
The Instruction "SetButtonStaticTextColor"	Changes the color of the text of one of the Static elements of a Button.
The Instruction "SetButtonStaticTextPosition"	Changes the positioning of the text of one of the Static elements of a Button.
The Instruction "SetButtonStatus"	Changes the output and editing.
The Instruction "SetButtonText"	Changes the caption.
The Instruction "SetButtonTextColor"	Changes the color of the caption.
Instructions for Checkboxes	
The Instruction "SetCheckBoxBackColor"	Changes the background color.
The Instruction "SetCheckBoxCaption"	Changes the caption.
The Instruction "SetCheckBoxRect"	Changes the position and size.
The Instruction "SetCheckBoxState"	Changes the state.

Table 5-70 Overview of Instructions

Instruction	Description
The Instruction "SetCheckBox-Status"	Changes the output and editing.
The Instruction "SetCheckBox-TextColor"	Changes the color of the caption.
The Instruction "SetCheckBox-ToVariable"	Sets a Variable to the state.
Instructions for Listboxes	
The Instruction "GetListBoxSel-Text"	Sets a Variable to the first selected text.
The Instruction "OffAllListBox-ItemBlink"	Turns off the blinking for all elements of the List.
The Instruction "OffListBox-ItemBlink"	Turns off the blinking for one element of the List.
The Instruction "SetListBox-BackColor"	Changes the background color.
The Instruction "SetListBox-BlinkTime"	Changes the blinking interval of the List elements.
The Instruction "SetListBox-ItemBlink"	Turns on the blinking for one element of the List.
The Instruction "SetListBox-ItemColor"	Changes the color of the text of a List element.
The Instruction "SetListBoxList"	Fills the Listbox from a Data list.
The Instruction "SetList-BoxRect"	Changes the position and size.
The Instruction "SetListBoxSe-lectionToVariable"	Fills a Data list with the elements selected in the List.
The Instructions "SetListBox-Status"	Changes the output and editing.
The Instruction "SetListBoxTex-tColor"	Changes the general text color.
The Instruction "SetListBoxTo-Variable"	Fills a Data list with the Listbox.
Instructions for Comboboxes	
The Instruction "AddListTo-ComboBox"	Adds a datalist to the existing elements.

Table 5-70 Overview of Instructions

Instruction	Description
The Instruction "ClearComboBox"	Deletes all elements.
The Instruction "GetComboBoxSelText"	Sets a Variable to the selected text.
The Instruction "SetComboBoxBackColor"	Changes the background color.
The Instruction "SetComboBoxList"	Fills the Combobox from a Data list.
The Instruction "SetComboBoxRect"	Changes the position and size.
SetComboBoxStatus	Changes the output and editing.
The Instruction "SetComboBoxTextColor"	Changes the text color.
The Instruction "SetComboToVariable"	Sets a Variable to the selected Combobox entry.

Table 5-70 Overview of Instructions

5.11.3 Add a new Instruction

Follow the below steps to add a new Instruction to a Function:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Function to which you want to add a new Instruction.
3.	Open: • either the node "Functions" and continue with step **4**. • or the node "Controls" and continue with step **5**.
4.	Open: • either the child node "On_Load", • the child node "On_Message", • the child node "On_Timer", • or the child node "User". Continue with step **7**.
5.	Open the parent Button of the Function to which you want to add a new Instruction.

Table 5-71 Add a new Instruction to a Function

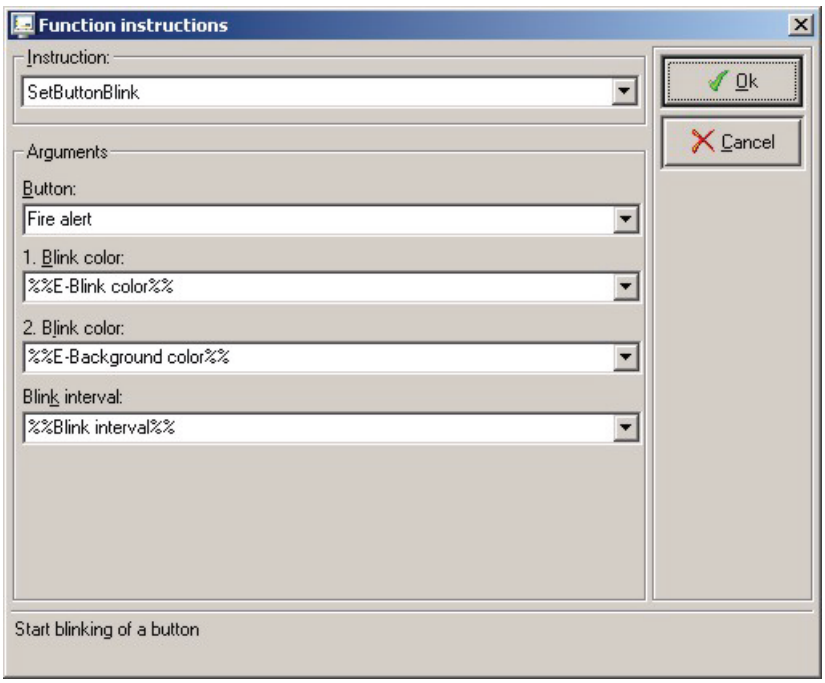
No.	Task
6.	Click the child node "Functions".
7.	Open the Function to which you want to add a new Instruction.
8.	Mark the child node "Instructions".
9.	Now go to the menu bar and select "Edit→New". This will open the following user window to edit the selected Instruction: 
10.	Select the Instruction you want to add and choose arguments for it.
11.	Finally, click **Ok** to close the window. The DCO-Designer outputs the newly added Instruction in the child node "Instructions" of the pertinent parent Function.

Table 5-71 Add a new Instruction to a Function

5.11.4 Edit Instructions

Follow the below instructions to edit an existing Instruction in a Function:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Function to which you want to add a new Instruction.

Table 5-72 Edit an Instruction of a Function

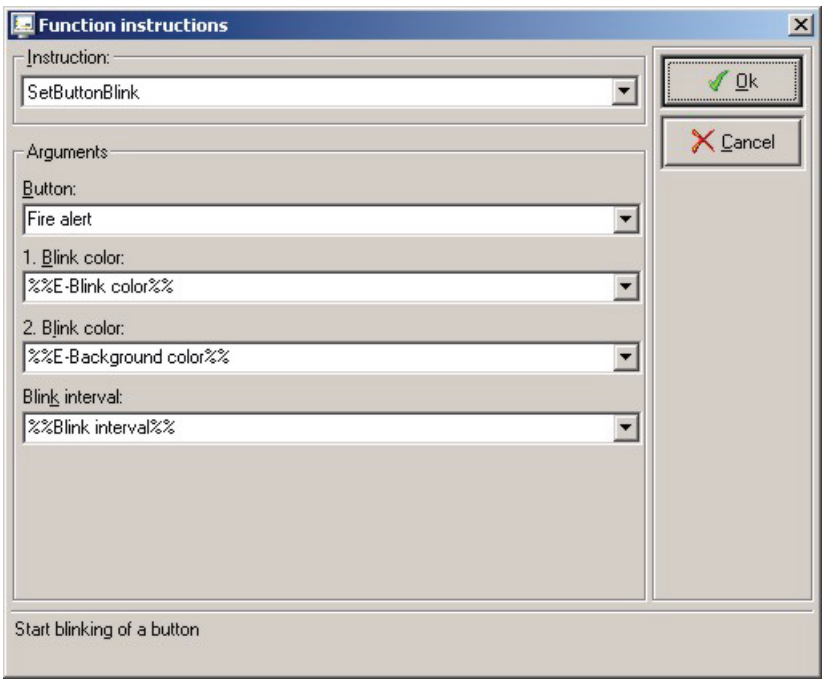
No.	Task
3.	Open: • either the node "Functions" and continue with step **4**. • or the node "Controls" and continue with step **5**.
4.	Open: • either the child node "On_Load" • the child node "On_Message", • the child node "On_Timer", • or the child node "User". Continue with step **7**.
5.	Open the parent Button of the Function to which you want to add a new Instruction.
6.	Click the child node "Functions".
7.	Now open the child node "Functions" that contains the Instruction you want to edit.
8.	Now open the child node "Instructions".
9.	Now go to the menu bar and select "Edit→New". This will open the following user window to edit the selected Instruction: 
10.	Edit the Instructions and/or arguments as required.
11.	Finally, click **Ok** to save your changes and close the user window.

Table 5-72 Edit an Instruction of a Function

5.11.5 Change the order in which the Instructions are executed

Follow the below instructions to change in a Function the order in which the existing Instructions are executed :

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Function whose Instructions you want edit with regard to the order in which they are executed.
3.	Open: • either the node "Functions" and continue with step **4**. • or the node "Controls" and continue with step **5**.
4.	Open: • either the child node "On_Load" • the child node "On_Message", • the child node "On_Timer", • or the child node "User". Continue with step **7**.
5.	Open the parent Button of the Function whose Instructions you want edit with regard to the order in which they are executed.
6.	Click the child node "Functions".
7.	Open the Function whose Instructions you want edit with regard to the order in which they are executed.
8.	Now open the child node "Instructions".
9.	Select the Instruction that you want to be executed earlier or later relative to the other Instructions.
10.	Here you can: • the menu item "Edit→Move up" to move the execution of the Instruction further up in the order, or • the menu item "Edit→Move down" to move the execution of the Instruction further down in the order.

Table 5-73 Edit an Instruction of a Function

5.11.6 The Instruction "AddListToComboBox"

Description

Use this Instruction to add the data elements of a Data list to the existing list elements of a Combobox.

Please note that to do so, the Data list and the Combobox must be of the same type!

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox to which you want to add the data elements of the Data list. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Listbox	Editable combobox to specify the Data list whose data elements you want to add to the selected Combobox. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists.

Table 5-74 Arguments of the Instruction "AddListToComboBox"

5.11.7 The Instruction "Call"

Description

Use this Instruction to carry out the Instructions of another Function.

Please note that this feature only applies to the Functions that are stored in the child node "User" of a Frame that is also the parent Frame of the Instruction you are currently editing.

Arguments

Arguments	Description
Function	Editable combobox to define the Function that shall be executed. Here you can: • enter the name of the Function direct or • select a Function from the list of all available Functions.

Table 5-75 The arguments of the Instruction "Call"

5.11.8 The Instruction "BroadcastMessage"

Description

Use this instruction to broadcast a message to the own page or i.a. an associated page (from normal page ➠ toolbar page or from toolbar page ➠ normal page). The broadcasted messages are processed in the specified Function of the branch “On_Message“ of both pages.

Arguments

Arguments	Description
Message	Editable combobox to specify the function name in the branch “On_Message“ that shall be executed. Here you can: • enter the name of an“ On_Message“ function direct or • select a “On_Message“ function from the list of all available functions.

Table 5-76 The arguments of the Instruction "BroadcastMessage"

5.11.9 The Instruction "ClearComboBox"

Description

Use this Instruction to clear a Combobox, i. e. remove all List elements.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox that you want to clear. Here you can: • either enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.

Table 5-77 The arguments of the Instruction "ClearComboBox"

5.11.10 The Instruction "Execute"

Description

Use this Instruction to carry out a OScAR-Pro command template (see Section 5.8.7, "OScAR-Pro command templates") to trigger the below processes in OScAR-Pro:

- Launch Broadcasts.
- Convene conferences.
- Switch Info Telephone.
- Start scenarios.
- Set the output parameters of the Process windows in the OScAR-Pro-TT Operator-Tool.

Please note that this feature only applies to the OScAR-Pro command templates that are stored in the Frame that is also the parent Frame of the Instruction you are currently editing.

Arguments

Arguments	Description
OScAR-Pro command template	Editable combobox to specify the OScAR-Pro command template that shall be executed. Here you can: • enter the name of the OScAR-Pro command template direct or • select a OScAR-Pro command template from the list of all available OScAR-Pro command templates.

Table 5-78 The arguments of the Instruction "Execute"

5.11.11 The Instruction "GetBroadcasts"

Description

Use this Instruction to invoke a list of all DAKS-TT Administrator-Tooladministrated broadcasts and fill the Data list with the obtained entries. Please note that the Data list is automatically cleared before it is filled with the new entries.

In this process, the system will apply, if available, the Filter that was specified (see Section 5.7, "Lists").

Note:
The List invoked with this Instruction only contains broadcasts for which the field "ID to trigger via telephone" was enabled.

Arguments

Arguments	Description
Data list	Editable combobox to define the Data list to which you want to add the obtained broadcast data. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists of the data type **bdc_id**.
Filter	Editable combobox to define the Filter that is used to limit the received broadcasts. Here you can: • enter the name of the Filter direct or • select one of the Filters of the type **BDC** that are already available.

Table 5-79 The arguments of the Instruction "GetBroadcast"

Note

To have the broadcast List received with this command output on top, you need to place a List- or Combobox in the Frame and, in a second step, fill either or both using the command „The Instruction "SetListBoxList"“ or„The Instruction "SetComboBoxList"“ and the aforementioned Data list.

5.11.12 The Instruction "GetConferences"

Description

Use this Instruction to invoke a list of all DAKS-TT Administrator-Tool administrated conferences and fill the Data list with the obtained entries. Please note that the Data list is automatically cleared before it is filled with the new entries.

In this process, the system will apply, if available, the Filter that was specified (see Section 5.7, "Lists").

Note:
The List invoked with this Instruction only contains conferences for which the field "ID to trigger via telephone" was enabled.

Arguments

Arguments	Description
Data list	Editable combobox to specify the Data list to which you want to add the received conferences. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists of the data type **con_id**.
Filter	Editable combobox to define the Filter that is used to limit the received conferences. Here you can: • enter the name of the Filter direct or • select a Filter of the type **CON** from the list of all available Filters.

Table 5-80 The arguments of the Instruction GetConferences

Note

To have the conference List received with this command output on top, you need to place a List- or Combobox in the Frame and, in a second step, fill either or both with the command „The Instruction "SetListBoxList"“ and the aforementioned Data list.

5.11.13 The Instruction "GetComboBoxSelText"

Description

This commands enables you to read out a selected Combobox text and save it in a Variable.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox whose selected text you want be to read out. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Combob-oxes.
Variable	Editable combobox to specify the Variable you want to use to save the selected Combobox text. Here you can: • enter the name of the Variable direct or • select a Variable of the data type **string** from the list of all available Variables.

Table 5-81 The arguments of the Instruction GetComboBoxSelText

5.11.14 The Instruction "GetInfotelephones"

Description

Use this Instruction to invoke a list of all DAKS-TT Administrator-Tool administrated info telephone profiles and fill the Data list with the obtained entries. Please note that the Data list is automatically cleared before it is filled with the new entries.

In this process the system applies the specified Filter, if available (see Section 5.7, "Lists").

Arguments

Arguments	Description
Data list	Editable combobox to specify the Data list to which you want to add the received info telephone profiles. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists of the data type **itl_id**.
Filter	Editable combobox to define the Filter that is used to limit the received info telephone profiles. Here you can: • enter the name of the Filter direct or • select a Filter of the type **lITL** from the list of all available Filters.

Table 5-82 The arguments of the Instruction GetInfotelephones

Note

To output the List of info telephone profiles that are received with this command, place a List- or Combobox in the Frame and fill either or both with the command „The Instruction "SetListBoxList"“ and the aforementioned Data list.

5.11.15 The Instruction "GetListBoxSelText"

Description

This commands enables you to read out the text of the first selected element of a Listbox and save it in a Variable.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox, the first selected text of which you want be to read out. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Variable	Editable combobox to define the Variable in which you want to save the first selected text of the Listbox. Here you can: • enter the name of the Variable direct or • select a Variable of the data type **string** from the list of all available Variables.

Table 5-83 The arguments of the Instruction GetListBoxSelText

5.11.16 The Instruction "GetMessages"

Description

Use this Instruction to invoke a list of all DAKS-TT Administrator-Tool administrated announcements and fill the Data list with the obtained entries. Please note that the Data list is automatically cleared before it is filled with the new entries.

In this process the system applies the specified Filter, if available (see Section 5.7, "Lists").

Arguments

Arguments	Description
Data list	Editable combobox to specify the Data list to which you want to add the obtained announcement details. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists of the data type **msg_id**.
Filter	Editable combobox to define the Filter that is used to limit the received announcements. Here you can: • enter the name of the Filter direct or • select a Filter of the type **MSG** from the list of all available Filters.

Table 5-84 The arguments of the Instruction GetMessages

Note

To output the List of all announcements received with this command, place a List- or Combobox in the Frame and fill either or both with the command „The Instruction "SetListBoxList"“ and the aforementioned Data list.

5.11.17 The Instruction "GetScenarios"

Description

Use this Instruction to invoke a list of all DAKS-TT Administrator-Tooladministrated scenarios and fill the Data list with the obtained entries. Please note that the Data list is automatically cleared before it is filled with the new entries.

In this process, the system will, if available, apply the specified Filter (see Section 5.7, "Lists").

Note:
The List invoked with this Instruction only contains scenarios for which the field "ID" was enabled.

Arguments

Arguments	Description
Data list	Editable combobox to specify the Data list to which you want to add the obtained scenario details. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists of the data type **scn_id**.
Filter	Editable combobox to define the Filter that is used to limit the received scenarios. Here you can: • enter the name of the Filter direct or • select a Filter of the type **SCN** from the list of all available Filters.

Table 5-85 The arguments of the Instruction GetScenarios

Note

To output the List of all scenarios received with this command, place a List- or Combobox in the Frame and fill either or both with the command „The Instruction "SetListBoxList"“ and the aforementioned Data list.

5.11.18 The Instruction "GotoFrame"

Description

This command opens a new Frame.

Note:
Whenever a new Frame is opened with this Instruction, the current Frame with the present output is automatically cleared. If you want to save the different states of these Controls or other elements, please save them in Variables before you open the new Frame (see Section 5.11.2, "Overview of Instructions").

Arguments

Arguments	Description
Frame	Editable combobox to define the Frame that shall be opened. Here you can: • enter the name of the Frame direct or • select a Frame from the list of all available Frames.

Table 5-86 The arguments of the Instruction GotoFrame

5.11.19 The Instruction "OffAllListBoxItemBlink"

Description

Use this Function Instruction to turn OFF the blinking of all items of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox the blinking of which you want to switch off. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.

Table 5-87 The arguments of the Instruction OffAllListBoxItemBlink

5.11.20 The Instruction "OffButtonBlink"

Description

Use this Function Instruction to turn OFF the blinking of a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button the blinking of which you want to switch off. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.

Table 5-88 The arguments of the Instruction OffButtonBlink

5.11.21 The Instruction "OffEditBackColorBlink"

Description

Use this Function Instruction to turn OFF the blinking of the background of a Listbox.

Arguments

Arguments	Description
Edit field	Editable combobox to define the Edit field upon which you want the blinking to end. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.

Table 5-89 The arguments of the Instruction OffEditBackColorBlink

5.11.22 The Instruction "OffEditTextColorBlink"

Description

Use this Function Instruction to turn OFF the blinking of the text (content) of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to define the Edit field upon which you want the blinking to end. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.

Table 5-90 The arguments of the Instruction OffEditTextColorBlink

5.11.23 The Instruction "OffListBoxItemBlink"

Description

Use this Function Instruction to turn OFF the blinking of a single item of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox the blinking of which you want to switch off. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
List element	Editable combobox to define the index of the List element, the blinking of which you want to end. Here you can: • enter the index of the List element, • select a Listbox from the list of all available Listboxes, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.

Table 5-91 The arguments of the Instruction OffListBoxItemBlink

5.11.24 The Instruction "SetButtonBlink"

Description

Use this Function Instruction to turn ON the blinking of a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button you want to blink. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
1. Blink color	Editable combobox to define the primary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.
2. Blink color	Editable combobox to enter the secondary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.
Blink interval	Editable combobox to enter an interval for the alternation between the two above-mentioned colors (in milliseconds, 1000 milliseconds = 1 second). Here you can: • enter **-1** to use the interval of the parent Frame, • enter a numeric value or • assign a Constant, Parameter or Variable of the data type **int**.

Table 5-92 The arguments of the Instruction SetButtonBlink

Note

If you want the colors of a Button to alternate between the regular background color (here: light gray) and a second indicator color (here: red), we recommend you assign the indicator color (red) to the argument "1. Blink color" and the background color (light gray) to the argument "2. Blink color".

This will provide an immediate and well-visible reaction whenever the Button is pressed.

5.11.25 The Instruction "SetButtonColor"

Description

Use this Function Instruction to specify the background color of a Button.

Arguments

Arguments	Description
Button	Editable combobox to select the Button whose background color you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Color	Editable combobox to choose the background color for the selected Button. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-93 The arguments of the Instruction SetButtonColor

5.11.26 The Instruction "SetButtonPicture"

Description

Use this Function Instruction to assign a new or a different image to a Button .

Arguments

Arguments	Description
Button	Editable combobox to choose the Button to which you want to assign a new or a different image . Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Image	Editable combobox to specify the image assigned to a Button. Here you can: • enter a file name from the List of images, • select an image in the user window that opens as you click the entry "Select image..." in the drop down list (see Section 4.6.2, "Administration of the Image lists"), • assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.

Table 5-94 The arguments of the Instruction SetButtonPicture

5.11.27 The Instruction "SetButtonPictureScal"

Description

Use this Function Instruction to edit the scaling of an image on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button for which you want to scale the image. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Scaling	Editable combobox to define the scaling factor for the image on a Button. Here you can: • enter a scaling factor in %, • select **proportional** to align the image with the size of the Static element in keeping with the Static element's height/ width proportion, • select **unproportional** to align the image with the full scale of the Static element's surface irrespective of the height/width proportion, or • assign a reference to a Control that has the data type **float**.

Table 5-95 The arguments of the Instruction SetButtonPictureScal

5.11.28 The Instruction "SetButtonRect"

Description

Use this Function Instruction to edit the position and size of a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose position and size you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-96 The arguments of the Instruction SetButtonRect

5.11.29 The Instruction "SetButtonStaticBackColor"

Description

Use this Function Instruction to change the background color of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose Static element you want to give a different background color. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to define the Button's Static element to which you want to assign a different background color. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to define the background color you want to assign to the selected Static element of the Button. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-97 The arguments of the Instruction SetButtonStaticBackColor

5.11.30 The Instruction "SetButtonStaticBorderColor"

Description

Use this Function Instruction to edit the color of the border surrounding a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose Static element you want to give a different border color. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to define the Static element of the selected Button whose border you want to give a different color. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to define the color of the border surrounding the Static element. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-98 The arguments of the Instruction SetButtonStaticBorderColor

5.11.31 The Instruction "SetButtonStaticPictureName"

Description

Use this Function Instruction to change the image of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose Static element you want to give a different image. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to define the Static element of the selected Button to which you want to assign a different image. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Image	Editable combobox to define the image you want to assign to the Button's Static element. Here you can: • enter a file name from the List of images, • select an image in the user window that opens as you click the entry "Select image..." in the drop down list (see Section 4.6.2, "Administration of the Image lists"), • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-99 The arguments of the Instruction SetButtonStaticPictureName

5.11.32 The Instruction "SetButtonStaticPicturePos"

Description

Use this Function Instruction to change the positioning of the image of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button for which you want to reposition the image of the Static element. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Static element of the selected Button whose image you want to reposition. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Position	Drop down list to select the position for the image in the Button's Static element. Here you can: • choose from "**left, top**", "**h-center, top**", "**right, top**", "**left, center**", "**h-center, v-center**", "**right, center**", "**left, bottom**", "**h-center, bottom**", and "**right, bottom**" to find the best position for the text of the Static element of the Button, • assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.

Table 5-100 The arguments of the Instruction SetButtonStaticPicturePos

5.11.33 The Instruction "SetButtonStaticPictureScale"

Description

Use this Function Instruction to change the scaling of an image of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button with the Static element whose image you want to scale. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Static element of the selected Button whose image you want to scale. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Scaling	Editable combobox to define the scaling for the image of the Static element. Here you can: • enter a scaling factor in %, • select **proportional** to align the image with the size of the Static element in keeping with the Static element's height/width proportion, • select **unproportional** to align the image with the full scale of the Static element's surface, irrespective of the height/width proportion, or • assign a reference to a Control that has the data type **float**.

Table 5-101 The arguments of the Instruction SetButtonStaticPictureScale

5.11.34 The Instruction "SetButtonStaticRect"

Description

Use this Function Instruction to edit the position and size of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose Static element you want to edit in position and size. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to enter the Static element of the selected Button, the position and size of which you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-102 The arguments of the Instruction SetButtonStaticRect

5.11.35 The Instruction "SetButtonStaticStatus"

Description

Use this Function Instruction to edit the way in which a Static element on a Button is output and used.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button whose Static element you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Static element of the selected Button that you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Status	Drop-down list to define way in which the Button's Static element is output and used. Here you can: • choose **0** to hide the Static element, • choose **1** to show the Static element and enable entries, • choose **2** to output the Static element but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-103 The arguments of the Instruction SetButtonStaticStatus

5.11.36 The Instruction "SetButtonStaticText"

Description

Use this Function Instruction to edit the text of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button of the Static element whose text you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Button's Static element whose text you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Text	Editable combobox to enter the text you want to assign to the Button's Static element. Here you can: • enter a string, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-104 The arguments of the Instruction SetButtonStaticText

5.11.37 The Instruction "SetButtonStaticTextColor"

Description

Use this Function Instruction to change the color of the text of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button whose Static element you want to edit with regard to the color of its text. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Static element of the selected Button, the text color of which you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to define the text color you want to assign to the Static element of the Button. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-105 The arguments of the Instruction SetButtonStaticTextColor

5.11.38 The Instruction "SetButtonStaticTextPosition"

Description

Use this Function Instruction to edit the positioning of the text of a Static element on a Button.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button with the Static element whose text position you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Static element	Editable combobox to choose the Static element of the selected Button, the text position of which you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Position	Drop down list to select the position for the image in the Button's Static element. Here you can: • choose from "**left, top**", "**h-center, top**", "**right, top**", "**left, center**", "**h-center, v-center**", "**right, center**", "**left, bottom**", "**h-center, bottom**", and "**right, bottom**" to find the best position for the text of the Static element of the Button, • assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.

Table 5-106 The arguments of the Instruction SetButtonStaticTextPosition

5.11.39 The Instruction "SetButtonStatus"

Description

Use this Function Instruction to edit the way in which a Button is output and used.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Status	Editable combobox to define the way in which the Button is output and used. Here you can: • choose **0** to hide the Button, • choose **1** to show the Button and enable entries, • choose **2** to output the Button but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-107 The arguments of the Instruction SetButtonStatus

5.11.40 The Instruction "SetButtonText"

Description

Use this Function Instruction to edit the text or caption of a Button.

Arguments

Arguments	Description
Button	Editable combobox to define the Button whose text you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Text	Editable combobox to enter the text you want to give the Button. Here you can: • enter a string, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-108 The arguments of the Instruction SetButtonText

5.11.41 The Instruction "SetButtonTextColor"

Description

Use this Function Instruction to edit the color of the text of a Button.

Arguments

Arguments	Description
Button	Editable combobox to choose the Button whose text color you want to edit. Here you can: • enter the name of the Button direct or • select a Button from the list of all available Buttons.
Color	Editable combobox to choose the color for the text of the Button. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-109 The arguments of the Instruction SetButtonTextColor

5.11.42 The Instruction "SetCheckBoxBackColor"

Description

Use this Function Instruction to change the background color of a Checkbox.

Arguments

Arguments	Description
Checkbox	Editable combobox to define the Checkbox whose background color you want to edit. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Color	Editable combobox to define the background color of the selected Checkbox. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-110 The arguments of the Instruction SetCheckBoxBackColor

5.11.43 The Instruction "SetCheckBoxCaption"

Description

Use this Function Instruction to edit the text or caption of a Checkbox.

Arguments

Arguments	Description
Checkbox	Editable combobox to specify the Checkbox whose text you want to edit. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Text	Editable combobox to enter the text for the Checkbox. Here you can: • enter a string, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-111 The arguments of the Instruction SetCheckBoxCaption

5.11.44 The Instruction "SetCheckBoxRect"

Description

Use this Function Instruction to change the position and size of a Checkbox.

Arguments

Arguments	Description
Checkbox	Editable combobox to specify the Checkbox whose position and size you want to edit. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-112 The arguments of the Instruction SetCheckBoxRect

5.11.45 The Instruction "SetCheckBoxState"

Description

Use this Function Instruction to edit the state (marked/not marked) of a Checkbox.

Arguments

Arguments	Description
Checkbox	Editable combobox to specify the Checkbox whose state you want to edit. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
State	Combobox to define if the Checkbox is marked. Here you can: • choose **0** to remove the marking from the selected Checkbox, • choose **1** to mark the selected Checkbox, • assign a Constant, Parameter or Variable of the data type **bool**, or • assign the reference to a Control that has the data type **bool**.

Table 5-113 The arguments of SetCheckBoxState

5.11.46 The Instruction "SetCheckBoxStatus"

Description

Use this Function Instruction to edit the way in which a Checkbox is output and used.

Arguments

Arguments	Description
Checkbox	Editable combobox to choose the Checkbox you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Status	Editable combobox to specify the way in which the selected Checkbox is output and used. Here you can: • choose **0** to hide the Checkbox, • choose **1** to show the Checkbox and enable entries, • choose **2** to output the Checkbox but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-114 The arguments of the Instruction SetCheckBoxStatus

5.11.47 The Instruction "SetCheckBoxTextColor"

Description

Use this Function Instruction to edit the color of the text of a Checkbox.

Arguments

Arguments	Description
Checkbox	Editable combobox to specify the Checkbox whose text color you want to edit. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Color	Editable combobox to choose the text color for the selected Checkbox. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-115 The arguments of the Instruction SetCheckBoxTextColor

5.11.48 The Instruction "SetCheckBoxToVariable"

Description

Use this Function Instruction to save a Checkbox's current state in a Variable of the data type **bool**.

In this process the Variable assumes one of the below integers:

- **0** if the Checkbox is not marked or
- **1** if the Checkbox is marked.

Arguments

Arguments	Description
Checkbox	Editable combobox to specify the Checkbox whose state you want to save in a Variable. Here you can: • enter the name of the Checkbox direct or • select a Checkbox from the list of all Checkboxes that are available.
Variable	Editable combobox to specify the Variable you want to use to save the state of the selected Checkbox. Here you can: • enter the name of the Variable direct or • select a Variable of the data type **bool** from the list of all available Variables.

Table 5-116 The arguments of the Instruction SetCheckBoxToVariable

5.11.49 The Instruction "SetComboBoxBackColor"

Description

Use this Function Instruction to change the background color of a Combobox.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox whose background color you want to edit. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Color	Editable combobox to choose the background color for the selected Combobox . Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-117 The arguments of the Instruction SetComboBoxBackColor

5.11.50 The Instruction "SetComboBoxList"

Description

Use this Function Instruction to fill a Combobox with the elements of a Data list.

Please note that to do so, the Data list and the Combobox must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox that you want to fill with the data elements of the Data list. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Data list	Editable combobox to specify the Data list that shall be used to fill the Combobox . Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists.

Table 5-118 The arguments of the Instruction SetComboBoxList

5.11.51 The Instruction "SetComboBoxRect"

Description

Use this Function Instruction to change the position and size of a Combobox.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox whose position and size you want to edit. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-119 The arguments of the Instruction SetComboBoxRect

5.11.52 The Instruction "SetComboBoxStatus"

Description

Use this Function Instruction to edit the way in which a Combobox is output and used.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Combob-oxes.
Status	Editable combobox to specify the way in which the selected Combobox is output and used. Here you can: • choose **0** to hide the Combobox, • choose **1** to show the Combobox and enable entries, • choose **2** to output the Combobox but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-120 The arguments of the Instruction SetComboBoxStatus

5.11.53 The Instruction "SetComboBoxTextColor"

Description

Use this Function Instruction to change the color of the text of a Combobox.

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox whose text color you want to edit. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Color	Editable combobox to choose the color for the text of the Combobox. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-121 The arguments of the Instruction SetComboBoxTextColor

5.11.54 The Instruction "SetComboToVariable"

Description

Use this Function Instruction to save the element that is currently selected in a Combobox in a Variable.

To do so, the Variable and the Combobox must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Combobox	Editable combobox to specify the Combobox whose currently selected element you want to save in a Variable. Here you can: • enter the name of the Combobox direct or • select a Combobox from the list of all available Comboboxes.
Variable	Editable combobox to specify the Variable in which you want to save the selected Combobox element. Here you can: • enter the name of the Variable direct or • select a Variable from the list of all Variables that are available.

Table 5-122 The arguments of the Instruction SetComboToVariable

5.11.55 The Instructions "SetEditBackColor"

Description

Use this Function Instruction to edit the background color of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose background color you want to edit. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Color	Editable combobox to define the background you want to give to the selected Edit field. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-123 The arguments of the Instruction SetEditBackColor

5.11.56 The Instruction "SetEditBackColorBlink"

Description

Use this Function Instruction to turn ON the blinking of the background of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose background blinking you want to switch on. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
1. Blink color	Editable combobox to define the primary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.
2. Blink color	Editable combobox to enter the secondary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-124 The arguments of the Instruction SetEditBackColorBlink

Arguments	Description
Blink interval	Editable combobox to enter an interval for the alternation between the two above-mentioned colors (in milliseconds, 1000 milliseconds = 1 second). Here you can: • enter **-1** to use the interval of the parent Frame, • enter a numeric value or • assign a Constant, Parameter or Variable of the data type **int**.

Table 5-124 The arguments of the Instruction SetEditBackColorBlink

5.11.57 The Instruction "SetEditRect"

Description

Use this Function Instruction to change the position and size of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose position and size you want to edit. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-125 The arguments of the Instruction SetEditRect

5.11.58 The Instruction "SetEditStatus"

Description

Use this Function Instruction to edit the way in which an Edit field is output and used.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Status	Editable combobox to specify the way in which the selected Edit field is output and used. Here you can: • choose **0** to hide the Edit field, • choose **1** to show the Edit field and enable entries, • choose **2** to output the Edit field but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-126 The arguments of the Instruction SetEditStatus

5.11.59 The Instruction "SetEditText"

Description

Use this Function Instruction to change the content (text) of the Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose content you want to edit. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Text	Editable combobox to enter the content of the Edit field. Here you can: • enter a string, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-127 The arguments of the Instruction SetEditText

5.11.60 The Instruction "SetEditTextColor"

Description

Use this Function Instruction to change the color of the text of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose text color you want to edit. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Color	Editable combobox to choose a new text color for the selected Edit field. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-128 The arguments of the Instruction SetEditTextColor

5.11.61 The Instruction "SetEditTextColorBlink"

Description

Use this Function Instruction to turn ON the blinking of the content (text) of an Edit field.

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose content you want to blink (switch ON). Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
1. Blink color	Editable combobox to define the primary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.
2. Blink color	Editable combobox to enter the secondary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-129 The arguments of the Instruction SetEditTextColorBlink

Arguments	Description
Blink interval	Editable combobox to enter an interval for the alternation between the two above-mentioned colors (in milliseconds, 1000 milliseconds = 1 second). Here you can: • enter **-1** to use the interval of the parent Frame, • enter a numeric value or • assign a Constant, Parameter or Variable of the data type **int**.

Table 5-129 The arguments of the Instruction SetEditTextColorBlink

5.11.62 The Instruction "SetEditToVariable"

Description

Use this Function Instruction to save the content of an Edit field in a Variable.

Please note that to do so, the Variable and the Edit field must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Edit field	Editable combobox to specify the Edit field whose content you want to be saved in a Variable. Here you can: • enter the name of an Edit field direct or • select an Edit field from the list of all Edit fields that are available.
Variable	Editable combobox to specify the Variable you want to use to save the content of the indicated Edit field. Here you can: • enter the name of the Variable direct or • select a Variable from the list of all available Variables with the same data type.

Table 5-130 The arguments of the Instruction SetEditToVariable

5.11.63 The Instruction "SetFrameColor"

Description

Use this Function Instruction to change the background color of a Frame. As a rule, this Instruction will always apply to the Frame that is the parent of the Function that is invoked and therefore executed.

Arguments

Arguments	Description
Color	Editable combobox to define the background color you want to assign to the Frame. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-131 The arguments of the Instruction SetFrameColor

5.11.64 The Instruction "SetListBoxBackColor"

Description

Use this Function Instruction to change the background color of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox whose background color you want to edit. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Color	Editable combobox to define the background color you want to assign to the Listbox. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-132 The arguments of the Instruction SetListBoxBackColor

5.11.65 The Instruction "SetListBoxBlinkTime"

Description

Use this Function Instruction to edit the interval in which you want the blinking Listbox items to change color.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox whose blink interval you want to edit. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Blink interval	Editable combobox to enter an interval for the alternation between the two above-mentioned colors (in milliseconds, 1000 milliseconds = 1 second). Here you can: • enter **-1** to use the interval of the parent Frame, • enter a numeric value or • assign a Constant, Parameter or Variable of the data type **int**.

Table 5-133 The arguments of the Instruction SetListBoxBlinkTime

5.11.66 The Instruction "SetListBoxItemBlink"

Description

Use this Function Instruction to switch on the blinking of a List element of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox whose element you want to blink (switch blinking of an item on). Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
List element	Editable combobox to specify the index of the List element of the selected List box , the blinking of which you want to switch on. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
1. Blink color	Editable combobox to define the primary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.
2. Blink color	Editable combobox to enter the secondary blink color. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-134 The arguments of the Instruction SetListBoxItemBlink

5.11.67 The Instruction "SetListBoxItemColor"

Description

Use this Function Instruction to change the text color of a List element of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the parent Listbox of the List element whose text color you want to change. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
List element	Editable combobox to specify the index of the List element of the selected List box , the text color of which you want to edit. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Color	Editable combobox to choose the text color you want to assign to the selected List element of the Listbox. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-135 The arguments of the Instruction SetListBoxItemColor

5.11.68 The Instruction "SetListBoxList"

Description

Use this Function Instruction to fill a Listbox with the elements of a Data list.

Please note that to do so, the Data list and the Listbox must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox that you want to fill with the data elements of the Data list. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Data list	Editable combobox to specify the Data list that shall be used to fill the Listbox. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists.

Table 5-136 The arguments of the Instruction SetListBoxList

5.11.69 The Instruction "SetListBoxRect"

Description

Use this Function Instruction to change the position and size of a Listbox.

Arguments

Arguments	Description
Listbox	Editable combobox to define the Listbox whose position and size you want to edit. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-137 The arguments of the Instruction SetListBoxRect

5.11.70 The Instruction "SetListBoxSelectionToVariable"

Description

Use this Function Instruction to save the element that is currently selected in a Listbox in a Variable.

Please note that to do so, the Variable and the Listbox must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox whose currently selected element you want to save in a Variable. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Variable	Editable combobox to specify the Variable in which you want to save the selected Listbox element. Here you can: • enter the name of the Variable direct or • select a Variable from the list of all Variables that are available.

Table 5-138 The arguments of the Instruction SetListBoxSelectionToVariable

5.11.71 The Instructions "SetListBoxStatus"

Description

Use this Function Instruction to edit the way in which a Listbox is output and used.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Status	Editable combobox to specify the way in which the selected Listbox is output and used. Here you can: • choose **0** to hide the Listbox, • choose **1** to show the Listbox and enable entries, • choose **2** to output the Listbox but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-139 The arguments of the Instruction SetListBoxStatus

5.11.72 The Instruction "SetListBoxTextColor"

Description

Use this Function Instruction to set the text color of the elements of a Listbox to the color values of a correlating Data list.

Arguments

Arguments	Description
Listbox	Editable combobox to specify the Listbox whose elements you want to give an individual text color. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Data list	Editable combobox to specify the Data list that shall be used to determine the individual text colors of the elements of the selected Listbox. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists.

Table 5-140 The arguments of the Instruction SetListBoxTextColor

5.11.73 The Instruction "SetListBoxToVariable"

Description

Use this Function Instruction to save all selected List elements of a Listbox in a Data list

Please note that to do so, the Data list and the Listbox must have the same data type (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Listbox	Editable combobox to define the Listbox whose selected elements you want to save in a Data list. Here you can: • enter the name of the Listbox direct or • select a Listbox from the list of all available Listboxes.
Data list	Editable combobox to specify the Data list in which you want to save the selected elements of the Listbox. Here you can: • enter the name of the Data list direct or • select a Data list from the list of all available Data lists.

Table 5-141 The arguments of the Instruction SetListBoxToVariable

5.11.74 The Instruction "SetStaticBackColor"

Description

Use this Function Instruction to change the background color of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to specify the Static element whose background color you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to choose the background color you want to assign to the Static element. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-142 The arguments of the Instruction SetStaticBackColor

5.11.75 The Instruction "SetStaticBorderColor"

Description

Use this Function Instruction to edit the color of the border surrounding a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to specify the Static element whose border color you want to change. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to define the color of the border surrounding the Static element. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-143 The arguments of the Instruction SetStaticBorderColor

5.11.76 The Instruction "SetStaticPictureName"

Description

Use this Function Instruction to change the image of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to choose the Static element whose image you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Image	Editable combobox to define the image you want to assign to the Static element. Here you can: • enter a file name from the List of images, • select an image in the user window that opens as you click the entry "Select image..." in the drop down list (see Section 4.6.2, "Administration of the Image lists"), • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-144 The arguments of the Instruction SetStaticPictureName

5.11.77 The Instruction "SetStaticPicturePos"

Description

Use this Function Instruction to change the positioning of the image of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to choose the Static element whose image you want to reposition. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Position	Drop down list to define the position of the image in the Static element. Here you can: • choose from "**left, top**", "**h-center, top**", "**right, top**", "**left, center**", "**h-center, v-center**", "**right, center**", "**left, bottom**", "**h-center, bottom**", and "**right, bottom**" to find the best position for the image of the Static element, • assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.

Table 5-145 The arguments of the Instruction SetStaticPicturePos

5.11.78 The Instruction "SetStaticPictureScale"

Description

Use this Function Instruction to edit the scaling of the image of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to choose the Static element whose image you want to scale. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Scaling	Editable combobox to define the scaling factor in % for the image assigned to the Static element. Here you can: • enter a scaling factor in %, • select **proportional** to align the image with the size of the Static element in keeping with the Static element's height/width proportion, or • select **unproportional** to align the image with the full scale of the Button irrespective of the actual height/width proportion.

Table 5-146 The arguments of the Instruction SetStaticPictureScale

5.11.79 The Instruction "SetStaticRect"

Description

Use this Function Instruction to edit the position and size of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to enter the Static element whose position and size you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Links	Editable combobox to define the left and upper (top) margin as well as the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type **int**, or • assign a reference to a Control that has the data type **int**.
Top	
Width	
Height	

Table 5-147 The arguments of the Instruction SetStaticRect

5.11.80 The Instruction "SetStaticStatus"

Description

Use this Function Instruction to edit the way in which a Static element is output and used.

Arguments

Arguments	Description
Static element	Editable combobox to choose the Static element that you want to edit with regard to the way in which it is output and used. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Status	Editable combobox to specify the way in which the selected Static element is output and used. Here you can: • choose **0** to hide the Static element, • choose **1** to show the Static element and enable entries, • choose **2** to output the Static element but block all entries, • assign a Constant, Parameter or Variable of the data type **uint**, or • assign the reference to a Control that has the data type **uint**.

Table 5-148 The arguments of the Instruction SetStaticStatus

5.11.81 The Instruction "SetStaticText"

Description

Use this Function Instruction to edit the text of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to specify the Static element whose text you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Text	Editable combobox to define the text you want to assign to the selected Static element. Here you can: • enter a string, • assign a Constant, Parameter or Variable of the data type **string**, • assign the reference to a Control that has the data type **string**.

Table 5-149 The arguments of the Instruction SetStaticText

5.11.82 The Instruction "SetStaticTextColor"

Description

Use this Function Instruction to change the color of the text of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to specify the Static element whose text color you want to edit. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Color	Editable combobox to define the text color you want to assign to the selected Static element. Here you can: • enter a color value (see Section 5.2, "The DCO data types and their value ranges"), • click "Select color" and use the next user window to choose a color (see Section 4.6.5, "Edit colors"), • assign a Constant, Parameter or Variable of the data type **color**, or • assign a reference to a Control that has the data type **color**.

Table 5-150 The arguments of the Instruction SetStaticTextColor

5.11.83 The Instruction "SetStaticTextPosition"

Description

Use this Function Instruction to change the positioning of the text of a Static element.

Arguments

Arguments	Description
Static element	Editable combobox to choose the Static element whose text you want to reposition. Here you can: • enter the name of the Static element direct or • select a Static element from the list of all Static elements that are available.
Position	Drop down list to select the position for the text that shall appear on the Static element. Here you can: • choose from "**left, top**", "**h-center, top**", "**right, top**", "**left, center**", "**h-center, v-center**", "**right, center**", "**left, bottom**", "**h-center, bottom**", and "**right, bottom**" to find the best position for the text of the Static element, • assign a Constant, Parameter or Variable of the data type **string**, or • assign the reference to a Control that has the data type **string**.

Table 5-151 The arguments of the Instruction SetStaticTextPosition

5.11.84 The Instruction "SetVariable"

Description

Use this Function Instruction to save a value in a Variable.

Please bear in mind that the entry assigned here in the argument "Value" must have the same data type as the "Variable" itself (see Section 5.2, "The DCO data types and their value ranges").

Arguments

Arguments	Description
Variable	Editable combobox to specify the Variable to which you want to assign a new value. Here you can: • enter the name of the Variable direct or • select a Variable from the list of all Variables that are available.
Value	Editable combobox to specify the value you want to assign to the selected Variable. Here you can: • enter a numeric value or a string, • assign a Constant, Parameter or Variable, or • assign a Control.

Table 5-152 The arguments of the Instruction SetVariable

5.11.85 The Instruction "StartProgram"

Description

Use this Function Instruction to trigger an external document or program and, if needed, wait for it to be closed again.

Provided you enter a document for "Executable program" whose file extension is properly registered under Windows, the system will start the corresponding program and open the document.

Arguments

Arguments	Description
Executable program	Editable combobox to specify the document or program you want to open or start, respectively. Here you can: • enter a string or • assign a Constant, Parameter or Variable of the data type **string**.
Parameter	Editable combobox to specify the prompting parameters. Here you can: • enter a string or • assign a Constant, Parameter or Variable of the data type **string**.
Wait for completion	Combobox to define if the you want the system to wait for the completion of the selected program. Here you can: • choose **0** if you do **not** want to wait for the program end, • choose **1** if you want to wait for the program end, or • assign a Constant, Parameter or Variable of the data type **bool**.

Table 5-153 The arguments of the Instruction StartProgram

Note

If you want to write e-mails from within your DCO-Script, all you need to do is create a new Button and assign a Function with this Function Instruction to it. Then simply enter "mailto:<E-Mail-Address>" (e.g.: `mailto:my.admin@my-company.de`) in the argument "Executable program".

In the same way you can also open a PDF-file by entering the full path of the file in the argument "Executable program", e.g.:
`\\my-server\iso9001\standardoperatingprocedure\alarms\alarmcalls.pdf`.

6 The planning and implementation of a DCO Project

Overview

The instructions in this chapter show you how to plan and realize a DCO project. The chapter also includes a case study and a tutorial to guide you through the first steps of creating a DCO-Script.

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The chapter covers the following sections:

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6.7 Test the DCO-Script

6.1 The case study project

On the basis of the Section 2.2, "Example application"case study that is already included in the , this chapter will show you how to successfully plan, outline, create and bring together a DCO-Script and then incorporate the final product it into the OScAR-Pro-TT Operator-Tool.

You can realize this project yourself at any time and at the same time retain the case study IDs and objects as well as your own real-life telephone numbers.

All files that are used in this case study are included ex-works in the installation CD and there in the directory :
`<CD-ROM>:\DCO-Designer\Example`

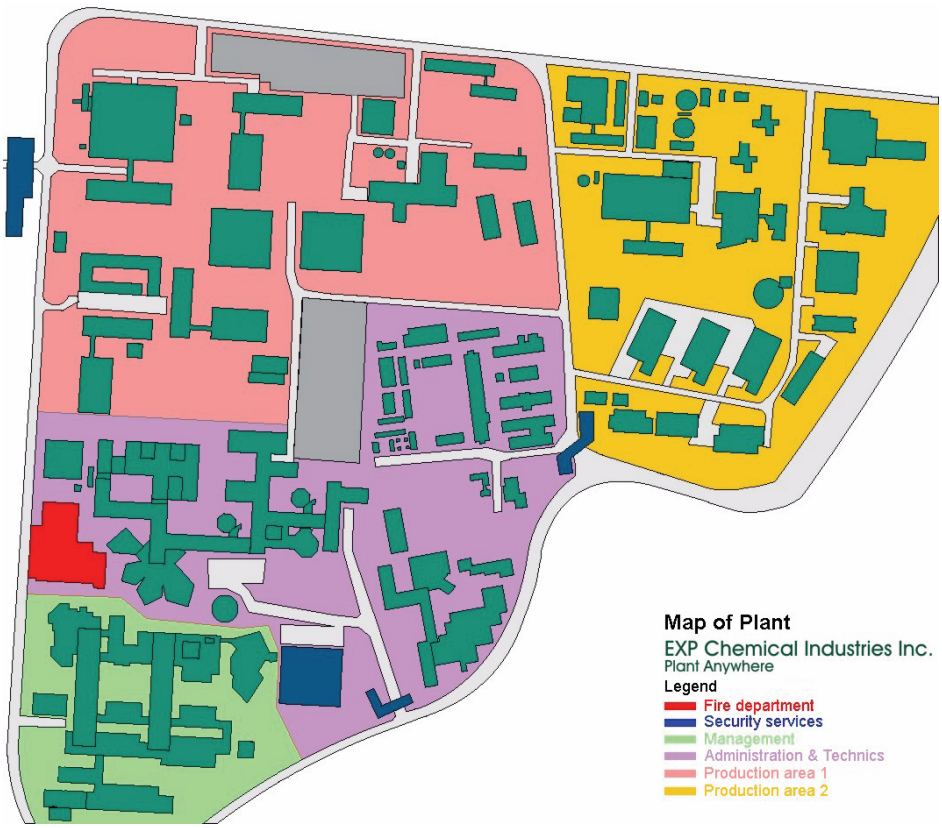
6.1.1 Case study requirements

The objective of the case study is to realize for a fictitious chemical company styled 'EXP Chemical Industries Inc.' ('EXP' short for 'example') a DCO-Script that is both easy to operate and that can be used to invoke a number of different broadcasts to respond to any kind of emergency in the best way possible using individual and even-related announcements.

This project is designed for touch screens with a resolution of 1280 x 1024 pixels.

6.1.2 Case study plant map

The project is based on the below plant map of the company premises:



File:
MAP.JPG

Image 6-1 Plant map of the premises and grounds of "Chemical Industries Inc".

The map covers four areas:

- Central Administration (in light green),
- Administration & Technics (against violet background),
- Production Area 1(against light salmon background), and
- Production Area 2 (against yellow background).

6.1.3 Objects administrated in OScAR-Pro

To meet the demands of this project, the following objects were administrated through the DAKS-TT Administrator-Tool and added to the objects installed ex-works:

ID	Name	Description
Subscribers		
	sysadm	System administrator with the PIN "9500" and full administrative and operative rights
	Test Management	This test phone represents the area Management.
	Test A&P	This test phone represents the area Admin & Technics .
	Test F1	This test phone represents the area Production 1.
	Test F2	This test phone represents the area Production 2.
	Test Fire alert	This test phone represents the fire department.
	Test Security	This test phone represents the security services.
	Sabadillen	Operator with the PIN "9999" and with full operative rights.
Announcements		
1000	Fire alert	Announcement with text message to alert all called subscribers to a fire alarm.
1001	Deflagration	Announcement with text message to alert all called subscribers to a deflagration in the production area.
1002	Leakage	Announcement with text message to alert all called subscribers to a leakage emergency or hazardous spill in the production area.
1003	Short circuit	Announcement with text message to alert all called subscribers to a short circuit.
1004	Forceful entry	Announcement with text message to alert all called subscribers of a forceful entry into the company premises.
1999	Current announcement	Announcement with text message to alert all called subscribers to other current emergencies. This announcement should to be recorded as the situation arises and before the pertinent broadcasts are launched.

ID	Name	Description
Broadcasts		
1000	Management	Broadcast group to alert all called subscribers in the Management area.
1100	Admin & Technics	Broadcast group to alert all called subscribers of the Admin & Technics area.
1200	Production 1	Broadcast group to alert all called subscribers in the Production 1 area.
1300	Production 2	Broadcast group to alert all called subscribers in the Production 2 area.

6.1.4 How to implement the case study

The implementation of the case study is divided into the following logical segments: in the first step, you will need to design the user interface (see Section 6.3, "Create Frames and Controls"); after that, you will add in several steps the functional contents to the script (see Section 6.4, "Create the global objects" to Section 6.6, "Create the Functions of the Frame "Announcement selection"").

The structure of the case study user interface

In this case study, the user interface is divided into:

- The "Main Page" used for the creation of the various visual and info elements and for:
  - several Event Buttons that enable the operator to select the best suitable announcements for the most important emergencies,
  - an Event display to output the currently selected announcement to the operator,
  - an Area Button for each area that make it possible for the operator to select the area(s) that need(s) to be alerted, plus
  - an Invoke Button that is only enabled if at least one announcement and a minimum of one area have been are selected and that is used by the operator to activate broadcasts.
- The Frame child node "Announcement selection" has the form of a user dialog and can be opened with the Event Button "More". It is used to create:
  - a Listbox to select additional event-related announcements,
  - an "Ok" Button to confirm your selection(s), and
  - a "Cancel" Button to close the Frame and discard all selection(s).

Global objects

The below-listed global objects are created for the internal storage of the data and to communicate with OScAR-Pro:

- To render the different possibilities of proceeding, the data of
  – the announcement "1000:Fire alert" is entered directly in form of values,
  – the announcement "1001:Deflagration" is created in form of a Constant, and
  – the announcements "1002:Leakage" and "1003:Short circuit" are created in form of parameters.
- The entire broadcast data is entered exclusively in form of parameters.
- In order to select the announcements administrated in OScAR-Pro via the Frames child node "Announcement selection", an index is created with a corresponding Data list and a matching Filter.
- Variables are created to store the currently selected announcement as well as its name and the currently selected broadcast.
- Except for the Button that is used to invoke the broadcast, a Variable is created for each Button on the Main Page to retain the information if the respective Button shall blink or not.

The Functions of the "Main page"

The following Functions are implemented on the Main Page:

- For each blinking Button, a Function is created that switches the blinking to ON or OFF in keeping with the Button's matching Variable.
- One Function to switch OFF the blinking of Event Buttons.
- Three Functions to control the status (enabled/blocked) of the "Invoke" Button. The objective here is to ensure that this Button is not enabled unless one event and at least one area have been selected.
- One Function that is invoked whenever the Main page is loaded and that switches the blinking of the Buttons to ON or OFF in keeping with their corresponding Variables. Please note that while the system supports the simultaneous blinking of several Area Buttons, can it only support the blinking of one Event Button at a time.
- The Area and Event Buttons receive the below Functions. They are automatically invoked whenever these Buttons are pressed:
  – One Function in case the Button is not yet blinking.
  – One Function in case the Button is already blinking.
- The Event Button "More" is assigned a Function to jump to "Announcement selection".

- For each individual area the "Invoke" Button is assigned a Function that, depending on the blink state of the correlating Button, starts the matching broadcast.

The Functions of the Frames child node "Announcement selection"

The following elements must be implemented for the child node "Announcement selection" under the node Frames:

- A Function that is automatically invoked when this Frame is loaded and that fills the Listbox with all administrated announcements within the ID-area from 0000 to 1999.
- A Function that is triggered when "Ok" is clicked without a prior confirmation of the selected announcements, and also when the "Cancel" Button is clicked.
- The "Ok" Button is given a Function to store the selected announcement and jump to the Main Page.
- The "Cancel" Button jumps directly to the Main Page.

6.2 Project administration

6.2.1 Create the project

Follow the below instructions to create the project:

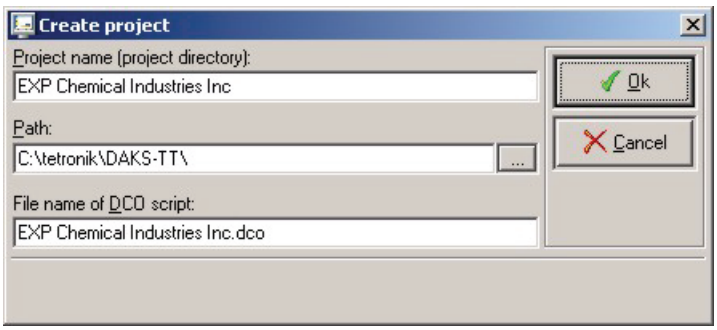
No.	Task	References
1.	Start the DCO-Designer.	4.1 Start the OScAR-Pro Customized Operator
2.	Go to the menu bar and click "Project→New" and use the keyboard shortcut Ctrl+N or click in the toolbar. This will open the window: 	
3.	Use the field "Project name (project directory" to enter a unique and recognizable name for your project (enter max. 50 characters, not supported characters are: **\/:*?"<>**), e.g."EXP Chemical Industries Inc.".	
4.	Use the field "Path" to enter the directory name (e.g. "c:\tetronik\OScAR-Pro-TT") or enter the path by clicking ... . **Note:** The system will automatically create a directory with the above-mentioned project name underneath the path entered here.	
5.	Adjust, if necessary, the automatically generated name of the DCO-Script file.	
6.	Click **"Ok"** to have theOScAR-Pro Customized Operator create the project.	

Table 6-1 Create the project

The descriptions and explanations in this chapter are based on the assumption that you have successfully started the DCO-Designer and created a new or opened an already existing project.

6.2.2 Open an existing project

Follow the below instructions to open an existing project:

No.	Task	References
1.	Start the DCO-Designer.	4.1 Start the OScAR-Pro Customized Operator
2.	The menu item "Project" lists the last 4 projects that were edited. From this list, select the project you want to use or open another already existing project via "Project→Open" and select the matching DCO-Script in the next user window .	

Table 6-2 Open an existing project

Note:
If you make changes to a project we recommend you save the project in regular intervals to ensure that no changes are lost.

6.3 Create Frames and Controls

To begin with, you need to create the Frames and then add the Controls to the Frames.

6.3.1 Create and customize the Frames

Create the "Main page"

Follow the below instructions to create the Main page:

No.	Task	References
1.	Create a new Frame with the following attributes: • Name: **Main page** • Interval: **500**	5.8.2 Add a new Frame
2.	Now specify if you want to start with the "Main page" in the OScAR-Pro-TT Operator-Tool and set the refresh interval to **2000**.	4.6.1 Edit project properties
3.	Open the Layout window to edit the Main page in terms of its layout. To do so, mark the child node "Main page" under the node "Frames" in the tree and click .	4.4 Setup and application of the Layout window
4.	Next, go to the menu bar and select "Layout→Frame size →1280x1024" so that the plant map will fit into the Frame.	4.4.4 Change the size of Frames and Controls
5.	Finally, click to save the project.	

Table 6-3 Create and adjust the "Main page"

Create the child node "Announcement selection" under the node Frames

Follow the below instructions to create the Frame "Announcement selection":

No.	Task	References
1.	Click to switch to the Structure window.	
2.	Add a new Frame and assign to it the name "**Announcement selection**". This Frame, that will later be opened with the click of a Button, has the form of a user dialog for an easy selection of the right announcement.	5.8.2 Add a new Frame
3.	In the tree, mark the newly added Frame "Announcement selection", then go to the toolbar and click .	
4.	This time, select "Layout→Frame size →600x800" in the menu bar to adjust your Frame to a smaller Frame size.	4.4.4 Change the size of Frames and Controls
5.	Finally, click to save the project.	

Table 6-4 Create and tweak the Frame "Announcement selection"

6.3.2 Add a background image to the "Main page"

In the next step, you need to place the map of the company plant as a background image onto the Main page. To do so, you first need to add a "Static element" that can be used to place images, captions or info texts anywhere in the Frame.

Follow the below instructions to create the map of the plant through the Structure window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Under the parent node "Main Page", open the node "Controls".	
4.	Now add a new Static element with the following attribute values: • Name: **Plant map** • Left: **0** • Top: **0** • Width: **1280** • Height: **1024**	5.8.4 Add a new Control through the Structure window
5.	Next, go back to the tree view and select "Image".	
6.	In the list view of the Structure window, open the editable combobox of the attribute "File name" and click "Select image...".	
7.	In the window "Project images list" click the file **MAP.JPG** to add the image to the image list of your project and then close the dialog with **"Ok"**.	4.6.2 Administration of the Image lists
8.	In the list view of the Structure window, change the value of the attribute "Position" to **left, bottom**.	
9.	Finally, click to save the project.	
10.	Next, click to switch to the Layout window and verify the result.	

Table 6-5 Add a background image to the Main page

6.3.3 Add visual separators to the "Main page"

We recommend you use the areas above and on the right hand side of the plant map for Buttons. For this reason, the areas are visually separated from the rest of the page with separator lines.

Follow the below instructions to add a separator line through the Structure window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Now add a new Static element with the following attribute values: • Name: **Horizontal Line** • Left: **0** • Top: **80** • Width: **1080** • Height: **2** • Border style: **simple** • Border width: **1** • Border color: **#FF6800**	5.8.4 Add a new Control through the Structure window
4.	Now add a new Static element with the following attribute values: • Name: **Vertical line** • Left: **1080** • Top: **80** • Width: **2** • Height: **944** • Border style: **simple** • Border width: **1** • Border color: **#FF6800**	5.8.4 Add a new Control through the Structure window
5.	Finally, click to save the project.	
6.	Next, click to switch to the Layout window and verify the result.	

Table 6-6 Insert separator lines

6.3.4 Add Captions to the "Main page"

This section shows you how to place Buttons to the plant map that are used to select the event announcements. To make this especially user-friendly for the operator, you will also add a corresponding caption.

Follow the below instructions to create the caption "Events" through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Now click to switch to the Layout window.	
4.	Now add a new Static element with the following attribute values: • Name: **Event** • Left: **0** • Top: **10** • Width: **150** • Height: **60**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control
5.	Change the attribute values in the node "Caption" to: • Text: **Events...** • Text color: **#FF6800** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14**	5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts
6.	Now repeat steps 4 and 5 with the following attributes values: • Name: **Event title** • Left: **1105** • Top: **10** • Width: **170** • Height: **15** • Text: **Currently selected:** • Text color: **#0000FF** • Position: **left, top** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **10**	

Table 6-7 Add a Caption

No.	Task	References
7.	Now repeat steps 4 and 5 with the following attributes values: • Name: **Event name** • Left: **1105** • Top: **30** • Width: **170** • Height: **38** • Text: **Hints...** • Text color: **#FF6800** • Position: **left, v-center** • Font: **Microsoft Sans Serif** • Font style: **Italics** • Size: **10**	
8.	Now repeat steps 4 and 5 with the following attributes values: • Name: **Note title** • Left: **1105** • Top: **785** • Width: **150** • Height: **25** • Text: **Hints:** • Text color: **#0000FF** • Position: **left, v-center** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14**	

Table 6-7 Add a Caption

No.	Task	References
9.	Now repeat steps 4 and 5 with the following attributes values: • Name: **Note text** • Left: **1105** • Top: **820** • Width: **150** • Height: **50** • Text: **1. Select event\n 2. Select area\n 3. Invoke** • Text color: **#0000FF** • Position: **left, top** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **10**	
10.	Finally, click to save the project.	
11.	Next, click to switch to the Layout window and verify the result.	

Table 6-7 Add a Caption

6.3.5 Add Buttons to the "Main page"

This section shows you how to create:

- the Event Buttons,
- the Area Buttons and
- the Invoke Button.

Also, texts and images are assigned to of these Buttons.

Insert "Event" Buttons

Follow the below instructions to insert Event Buttons through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Insert a Button with the following attribute values: • Name: **Fire alert** • Left: **150** • Text: **Fire alert** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **10** • Image scaling in %:**40** • Image: **FIRE.GIF**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts 4.6.2 Administration of the Image lists
4.	Now click to switch to the Layout window.	
5.	Select the tool and click the Static element "Events:". Press the Ctrl key, keep it pressed and click the Button "Fire alert". Both Control elements are now marked, with the Static element "Events:" now having a double border Frame.	4.4.2 Mark a Frame area or a Control
6.	Use the menu item "Layout→Make same size→Both" to bring both Control elements to the same size.	4.4.4 Change the size of Frames and Controls

Table 6-8 Insert "Event" Buttons

No.	Task	References
7.	Use the menu item "Layout→Adjust→Top" to align both Control elements with the top border.	4.4.5 Align and space elements automatically
8.	Finally, click to save the project.	
9.	Repeat the steps 3 through 8 for the Button "Deflagration"; and use the same attribute values, except for: • Name: **Deflagration** • Left: **310** • Text: **Deflagration** • Image file: **EXPLOSION.GIF**	
10.	Repeat the steps 3 through 8 for the Button "Leakage"; and use the same attribute values, except for: • Name: **Leakage** • Left: **490** • Text: **Leakage** • Image file: **ACID.GIF**	
11.	Repeat the steps 3 through 8 for the Button "Short circuit"; and use the same attribute values, except for: • Name: **Short circuit** • Left: **660** • Text: **Short circuit** • Image file: **ELECTRIC.GIF**	
12.	Repeat the steps 3 through 8 for the Button "More..."; and use the same attribute values, except for: • Name: **More** • Left: **920** • Text: **More...** • Image file: **DANGER.GIF**	
13.	Now click to switch to the Layout window.	
14.	Select the tool , make a left mouse click into the area above the Static element "Events:", keep the mouse key pressed and draw a border Frame around all Event Buttons. The Buttons are now marked.	4.4.2 Mark a Frame area or a Control

Table 6-8 Insert "Event" Buttons

No.	Task	References
15.	Use the menu item "Lay-out→Space evenly→Across" to distribute all Controls evenly along the upper border of the page.	4.4.5 Align and space elements automatically
16.	Next, click to switch to the Layout window and verify the result.	
17.	Finally, click to save the project.	

Table 6-8 Insert "Event" Buttons

Create "Area" Buttons

Follow the below instructions to insert Area Buttons through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Insert a Button with the following attribute values: • Name: **Management** • Left: **80** • Top: **875** • Width: **200** • Height: **60** • Background color: **#008000** • Text: **Management** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **12** • Image file: **RING_FILES.GIF**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts 4.6.2 Administration of the Image lists

Table 6-9 Insert "Area" Buttons

No.	Task	References
4.	Add another Button with the following attribute values: • Name: **AdminTechnics** • Left: **160** • Top: **630** • Width: **200** • Height: **60** • Background color: **#6300C6** • Text: **Admin &&Technics** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **12** • Image file: **TECHNICS.GIF**	
5.	Add another Button with the following attribute values: • Name: **Production 1** • Left: **160** • Top: **310** • Width: **200** • Height: **60** • Background color: **#804000** • Text: **Production 1** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **12** • Image file: **PRODUCTION_1.GIF**	
6.	Add another Button with the following attribute values: • Name: **Production 2** • Left: **765** • Top: **310** • Width: **200** • Height: **60** • Background color: **#FF8040** • Text: **Production 2** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **12** • Image file: **PRODUCTION_2.GIF**	

Table 6-9 Insert "Area" Buttons

No.	Task	References
7.	Next, click to switch to the Layout window and verify the result.	
8.	Finally, click to save the project.	

Table 6-9 Insert "Area" Buttons

Create an "Invoke" Button

Follow the below instructions to create the "Invoke" Button through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Now open the node "Main page" under the parent node "Frames", still in the tree view of the Structure window.	
3.	Add a Button with the following attribute values: • Name: **Invoke** • Left: **1105** • Top: **932** • Width: **150** • Height: **60** • Status: **2 (disabled)** • Text: **Invoke** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14** • Image file: **start.GIF**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts 4.6.2 Administration of the Image lists
4.	Next, click to switch to the Layout window and verify the result.	
5.	Finally, click to save the project.	

Table 6-10 Insert "Invoke" Buttons

6.3.6 Add Controls to the Frame "Announcement selection"

In the next step you need to add the Controls to the dialog Frame "Announcement selection" and assign texts and images to them.

Follow the below instructions to add the Controls through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the Frame "Announcement selection".	
3.	Select the node "Controls" in the tree view.	
4.	Now create a new Static element with the following attribute values: • Name: **Dialog title** • Left: **200** • Top: **70** • Width: **450** • Height: **25** • Text: **Please select announcement:** • Text color: **#0000FF** • Position: **left, v-center** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts
5.	Now create a Listbox with following attribute values: • Name: **Announcement list** • Left: **200** • Top: **105** • Width: **450** • Height: **360** • Font: **Microsoft Sans Serif** • Font style: **Standard** • Size: **10**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts

Table 6-11 Add Controls to the Frame "Announcement selection"

No.	Task	References
6.	Now create a Button with the following attribute values: • Name: **Ok** • Left: **200** • Top: **470** • Width: **200** • Height: **60** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14** • Text: **Ok** • Image scaling in %:**70** • Image: **"Ok".GIF**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts
7.	Now create a Button with the following attribute values: • Name: **Cancel** • Left: **450** • Top: **470** • Width: **200** • Height: **60** • Font: **Microsoft Sans Serif** • Font style: **bold** • Size: **14** • Text: **Cancel** • Image scaling in %:**70** • Image: **CANCEL.GIF**	5.8.5 Add a new Control through the Layout window 5.8.6 Edit the attributes of a Control 4.6.4 Edit fonts
8.	Next, click to switch to the Layout window and verify your results.	
9.	Finally, click to save the project.	

Table 6-11 Add Controls to the Frame "Announcement selection"

6.3.7 Screenshot of the final interface

In the next step, compare the project you have just created with the below screenshots.

Screenshot of the Structure window

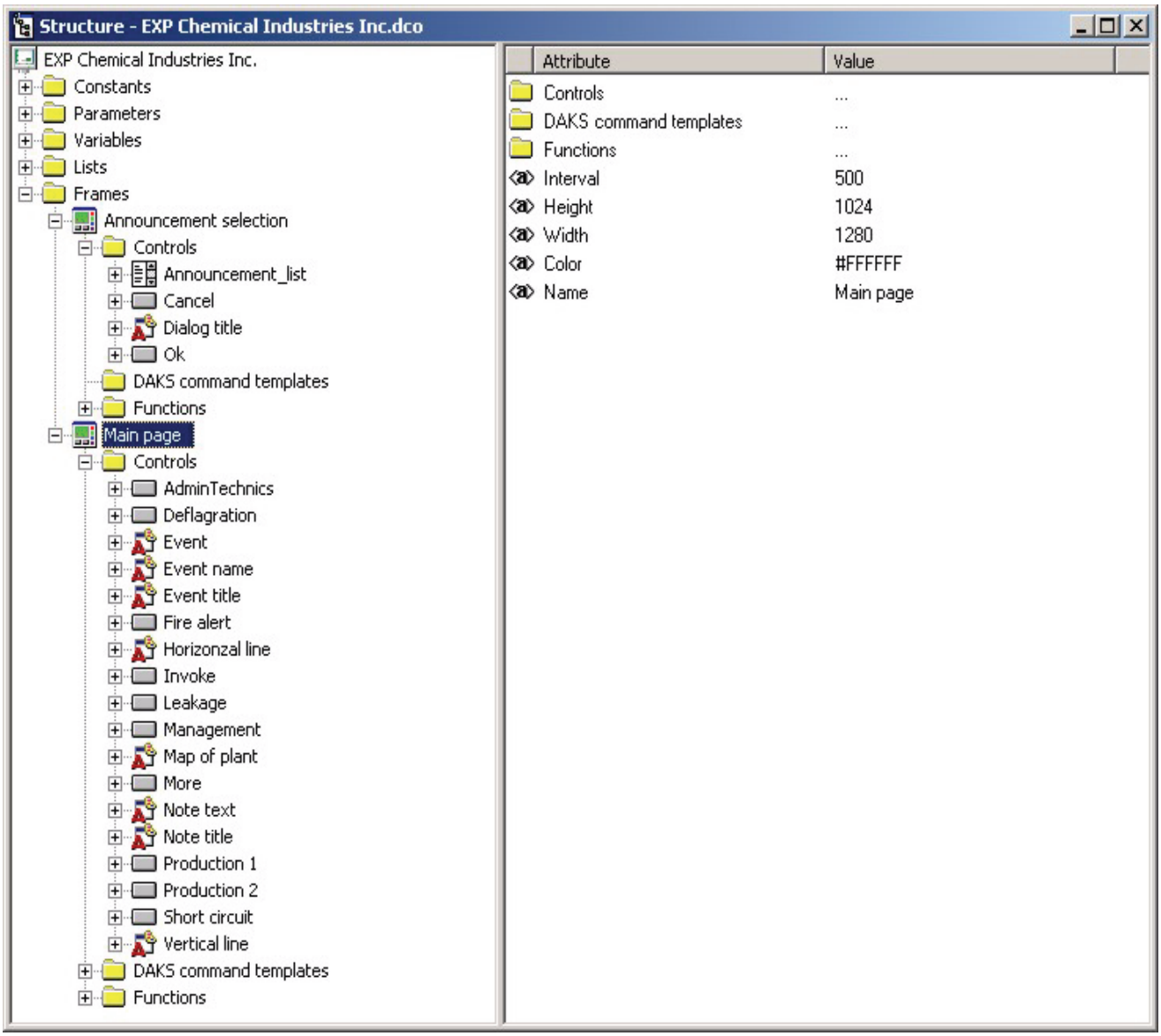


Image 6-2 Screenshot of the Structure window

Screenshot of the "Main page"

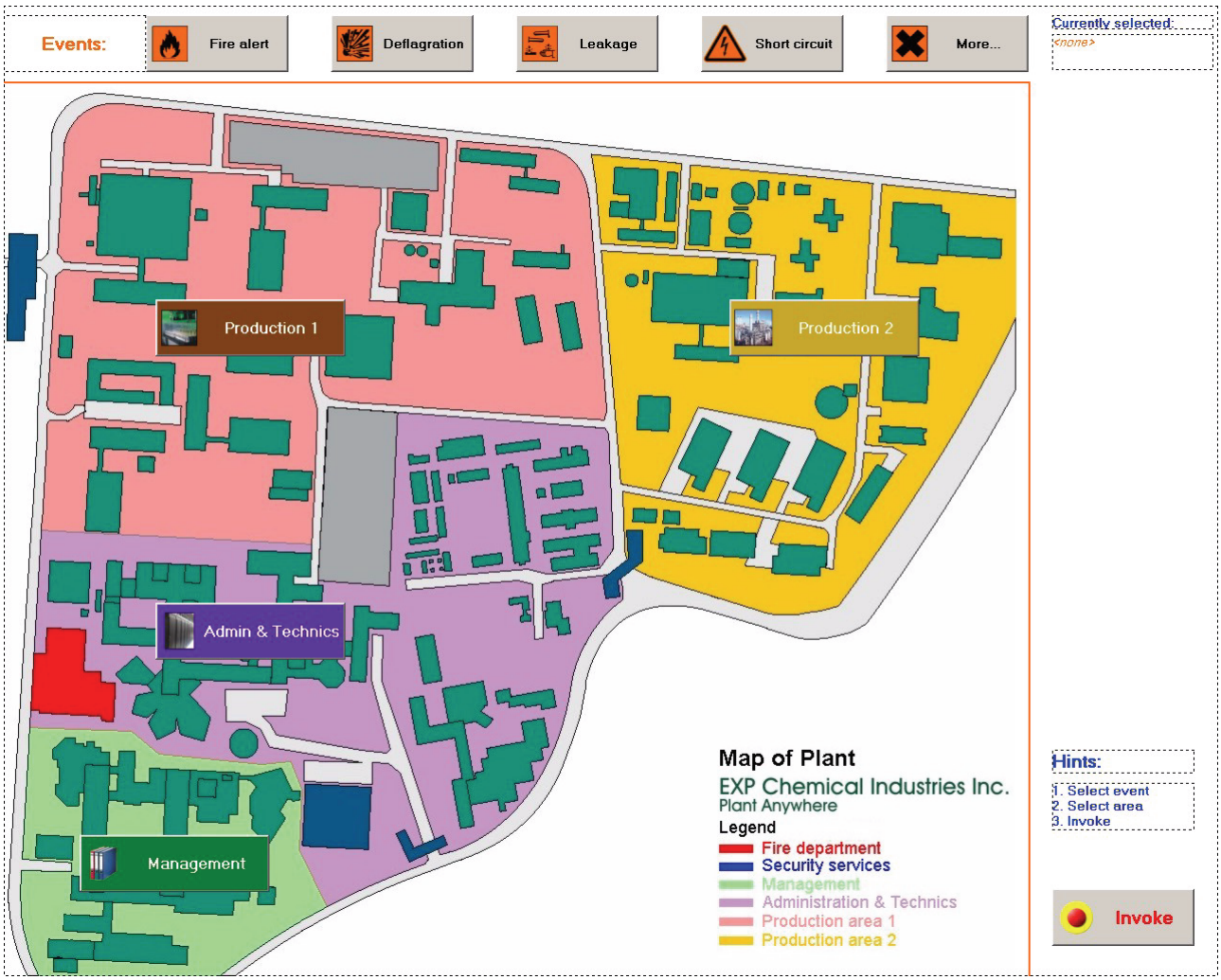


Image 6-3 Screenshot of the final "Main page"

Screenshot of the page "Announcement selection"

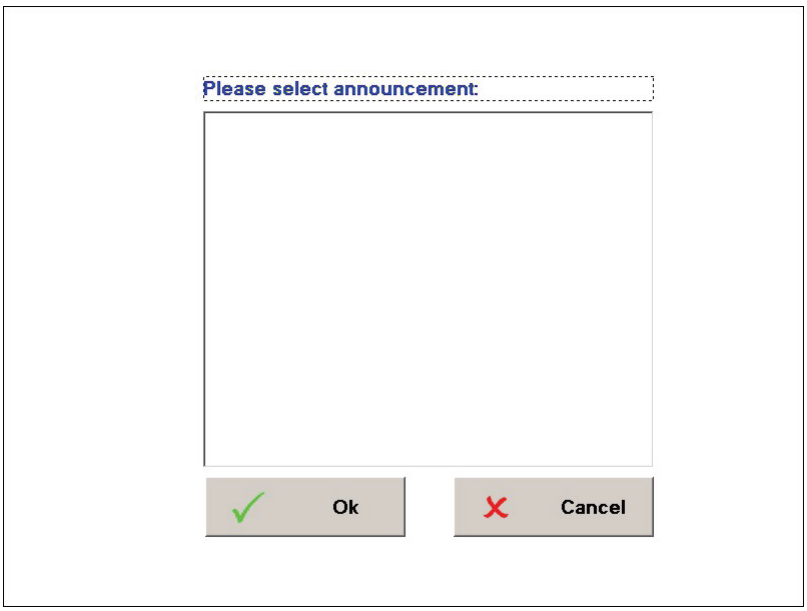


Image 6-4 Screenshot of the final "Announcement selection" Frame

6.4 Create the global objects

6.4.1 Create Constants

Now create the following Constants (see Section 5.4.2, "Add a new Constant"):

Name	Data type	Value	Description
A-Blink color	color	#FF6800	Blink color of the Button "AdminTechnics".
A-Background color	color	#6300C6	Background color of the Button "AdminTechnics".
Blink interval	int	-1	Interval in which the colors change when blinking.
E-Blink color	color	#FF6800	Blink color of the "Event" Buttons.
E-Background color	color	#D4D0C8	Background color of the Event Buttons when blinking.
P1-Blink color	color	#FF6800	Blink color of the Button "Production 1".
P1-Background color	color	#804000	Background color of the Button "Production 1".
P2-Blink color	color	#FF6800	Blink color of the Button "Production 2".
P2-Background color	color	#804000	Background color of the Button "Production 2".
No event	string	<none>	Text for the Static element "Event name" if no event is currently selected.
M-Blink color	color	#FF6800	Blink color of the Button "Management".
Deflagration	msg_id	1001	ID of the announcement administrated in OScAR-Pro for the event "Deflagration"
Deflagration --name	string	1001:Deflagration	Text for the Static element "Event name" if the user has selected the event "Deflagration".
M-Background color	color	#804000	Background color of the Button "Management".

Table 6-12 Create Constants

6.4.2 Create the Parameters

Now create the below-listed Parameter groups (see Section 5.5.1, "Add a new Parameter group") and Parameters (see Section 5.5.3, "Add a new Parameter"):

Name	Data type	Value	Description
Parameter group "Announcements"			
Short circuit	msg_id	1003	ID of the announcement administrated in OScAR-Pro for the event "Short circuit".
Short circuit--name	string	1003:Short circuit	Text for the Static element "Event name" if the user has selected the event "Short circuit".
Leakage	msg_id	1002	ID of the announcement administrated in OScAR-Pro for the event "Leakage"
Leakage-name	string	1002:Leak-age	Text for the Static element "Event name" if the user has selected the event "Leakage".
Parameter group "Broadcasts"			
Admin & Technics	bdc_id	1100	ID of the broadcast group administrated in OScAR-Pro for the area "Admin & Technics".
Production 1	bdc_id	1200	ID of the broadcast group administrated in OScAR-Pro for the area "Production 2".
Production 2	bdc_id	1300	ID of the broadcast group administrated in OScAR-Pro for the area "Production 2".
Management	bdc_id	1000	ID of the broadcast group administrated in OScAR-Pro for the area "Management".

Table 6-13 Create Parameters

6.4.3 Create the Variables

Now create create the following Variables (see Section 5.6.2, "Add a new Variable"):

Name	Data type	Value	Description
AdminTech blinking	bool	0	Info field to indicate that the Button "Admin & Technics" is currently blinking.
Production 1 blinking	bool	0	Info field to indicate that the Button "Production 1" is currently blinking.
Production 2 blinking	bool	0	Info field to indicate that the Button "Production 2" is currently blinking.
Fire alert blinking	bool	0	Info field to indicate that the Button "Fire alert" is currently blinking.
Short circuit blinking	bool	0	Info field to indicate that the Button "Short circuit" is currently blinking.
Leakage blinking	bool	0	Info field to indicate that the Button "Leakage" is currently blinking.
Selected message	msg_id	-1	Info field for the event that is currently selected.
Selected broadcast	bdc_id	-1	User window for the broadcast that currently needs to attended.
Selected event	string	%%No event%%	Info field for the currently selected event text of the Static element "Event name".
More blinking	bool	0	Info field to indicate that the Button "More" is currently blinking.
Deflagration blinking	bool	0	Info field to indicate that the Button "Deflagration" is currently blinking.
Management blinking	bool	0	Info field to indicate that the Button "Management" is currently blinking.

Table 6-14 Create Variables

6.4.4 Create the Lists

To fill the list field "Announcement list" located under the "Frames" child node "Announcement selection", and there under "Controls", you need a corresponding data container in form of a Data list. This Data list is filled with the instruction „The Instruction "GetMessages"“ and then copied to the list field with the instruction „The Instruction "SetListBoxList"“.

To restrict the value range of the administrated announcements, you also require a matching Filter.

Create the Data list

Create the following Data list (see Section 5.7.2, "Add a new Data list"):

Name	Data type	Description
Administrated emergency messages	msg_id	Data list to accept the emergency messages administrated in OScAR-Pro.

Table 6-15 Create Data lists

Create the Filter

Create the below-listed Filter (see Section 5.7.7, "Add a new Filter"):

Name	Data type	IDs	Description
Emergency message Filter	msg_id	ID ranges • from: **0000** • to: **1999** Excluded IDs • **1000** • **1001** • **1002** • **1003**	Info field for the event that is currently selected.

Table 6-16 Create the Filter

6.4.5 Create the OScAR-Pro command template "Invoke broadcast"

In order to launch broadcasts on the basis of the selected events and company areas, you need a so-called OScAR-Pro command template (see Add a new OScAR-Pro command template).

Description

It is this command template that invokes the broadcast in keeping with the two Variables "Selected message" and "Selected broadcast".

Attributes

Attribute	Contents
Name	Invoke broadcast
Type	BDC
Display text	
Dialing subscribers	15
Cornet-N(Q)® features	0
Monitor subscriber state	0
High-priority broadcast	0
OnMin	0
OnMax	0

Broadcast IDs

Broadcast IDs
$Selected broadcast$

Announcement IDs

Announcement IDs
$Selected message$

6.5 Create the Functions of the "Main page"

To successfully create the Functions of the "Main page" and due to the fact that the Functions "Activate invoke" and "Blink Buttons" covered in this section utilize the Functions described earlier, it is especially important that you add the below-listed Functions in the correct order.

6.5.1 The User Function: "Fire alert blink on"

Description

Use this Function to activate the blinking of the Button "Fire alert".

Attributes

Attribute	Contents
Name	Fire alert blink on
Condition	($Fire alert blinking$ AND ($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Argumentss	Contents
The Instruction "SetButtonBlink"	Button	Fire alert
	1. Blink color	%%E-Blink color%%
	2. Blink color	%%E-Background color%%
	Blink interval	%%Blink interval%%

6.5.2 The User Function: "Deflagration blink on"

Description

Use this Function to switch on the blinking of the Button "Deflagration".

Attributes

Attribute	Contents
Name	Deflagration blink on
Condition	($Deflagration blinking$ AND($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Deflagration
	1. Blink color	%%E-Blink color%%
	2. Blink color	%%E-Background color%%
	Blink interval	%%Blink interval%%

6.5.3 The User Function: "Leakage blink on"

Description

Use this Function to switch on the blinking of the Button "Leakage".

Attributes

Attribute	Contents
Name	Leakage blink on
Condition	($Leakage blinking$ AND($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Leakage
	1. Blink color	%%E-Blink color%%
	2. Blink color	%%E-Background color%%
	Blink interval	%%Blink interval%%

6.5.4 The User Function: "Short circuit blink on"

Description

Use this Function to switch on the blinking of the Button "Short circuit".

Attributes

Attribute	Contents
Name	Short circuit blink on
Condition	($Short circuit blinking$ AND($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Short circuit
	1. Blink color	%%E-Blink color%%
	2. Blink color	%%E-Background color%%
	Blink interval	%%Blink interval%%

6.5.5 The User Function: "More blink on"

Description

Use this Function to switch on the blinking of the Button "More".

Attributes

Attribute	Contents
Name	More blink on
Condition	($More blinking$ AND($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	More
	1. Blink color	%%E-Blink color%%
	2. Blink color	%%E-Background color%%
	Blink interval	%%Blink interval%%

6.5.6 The User Function: "Management blink on"

Description

Use this Function to switch on the blinking of the Button "Management".

Attributes

Attribute	Contents
Name	Management blink on
Condition	$Management blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Management
	1. Blink color	%%M-Blink color%%
	2. Blink color	%%M-Background color%%
	Blink interval	%%Blink interval%%

6.5.7 The User Function: "AdminTechnics blink on"

Description

Use this Function to switch on the blinking of the Button "AdminTechnics".

Attributes

Attribute	Contents
Name	AdminTechnics blink on
Condition	$AdminTech blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	AdminTechnics
	1. Blink color	%%A-Blink color%%
	2. Blink color	%%A-Background color%%
	Blink interval	%%Blink interval%%

6.5.8 The User Function: "Production 1 blink on"

Description

Use this Function to activate the blinking of the Button "Production 1".

Attributes

Attribute	Contents
Name	Production 1 blink on
Condition	$Production 1 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Production 1
	1. Blink color	%%P1-Blink color%%
	2. Blink color	%%P1-Background color%%
	Blink interval	%%Blink interval%%

6.5.9 The User Function: "Production 2 blink on"

Description

Use this Function to activate the blinking of the Button "Production 2".

Attributes

Attribute	Contents
Name	Production 2 blink on
Condition	$Production 2 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonBlink"	Button	Production 2
	1. Blink color	%%P2-Blink color%%
	2. Blink color	%%P2-Background color%%
	Blink interval	%%Blink interval%%

6.5.10 The User Function: "Disable invoke"

Description

Use this Function to block the Button "Invoke" against entries.

Attributes

Attribute	Contents
Name	Disable invoke
Condition	(($Selected message$ EQL -1) OR ((!$Management blinking$ AND !$AdminTech blinking$) AND (!$Production 1 blinking$ AND !$Production 2 blinking$)))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonStatus"	Button	Invoke
	Status	2 (disabled)

6.5.11 The User Function: "Enable invoke"

Description

Use this Function to enable the Button "Invoke" to accept entries.

Attributes

Attribute	Contents
Name	Enable invoke
Condition	(($Selected message$ UEQ -1) AND (($Management blinking$ OR $AdminTech blinking$) OR ($Production 1 blinking$ OR $Production 2 blinking$)))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetButtonStatus"	Button	Invoke
	Status	1 (enabled)

6.5.12 The User Function: "Activate invoke"

Description

Use this Function to specify if the Button "Invoke" is enabled or disabled to accept entries.

Attributes

Attribute	Contents
Name	Activate invoke
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Enable invoke
The Instruction "Call"	Function	Disable invoke

6.5.13 The User Function: "Blink Buttons"

Description

Use this Function to set all Buttons to blinking.

Attributes

Attribute	Contents
Name	Blink Buttons
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "OffButtonBlink"	Button	Fire
The Instruction "OffButtonBlink"	Button	Deflagration
The Instruction "OffButtonBlink"	Button	Leakage
The Instruction "OffButtonBlink"	Button	Short circuit
The Instruction "OffButtonBlink"	Button	More
The Instruction "OffButtonBlink"	Button	Management
The Instruction "OffButtonBlink"	Button	AdminTechnics
The Instruction "OffButtonBlink"	Button	Production 1
The Instruction "OffButtonBlink"	Button	Production 2
The Instruction "Call"	Function	Fire alert blink on
The Instruction "Call"	Function	Deflagration blink on
The Instruction "Call"	Function	Leakage blink on
The Instruction "Call"	Function	Short circuit blink on
The Instruction "Call"	Function	More blink on
The Instruction "Call"	Function	Management blink on
The Instruction "Call"	Function	AdminTechnics blink on
The Instruction "Call"	Function	Production 1 blink on
The Instruction "Call"	Function	Production 2 blink on

Instruction	Arguments	Contents
The Instruction "Set-StaticText"	Static element	Event name
	Text	$Selected event$
The Instruction "Call"	Function	Activate invoke

6.5.14 The User Function: "Reset areas"

Description

Use this Function to reset all Variables that were tagged for the Area Buttons.

Attributes

Attribute	Contents
Name	Reset areas
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Management blinking
	Value	0
The Instruction "SetVariable"	Variable	AdminTech blinking
	Value	0
The Instruction "SetVariable"	Variable	Production 1 blinking
	Value	0
The Instruction "SetVariable"	Variable	Production 2 blinking
	Value	0

6.5.15 The User Function: "Reset events"

Description

Use this Function to reset the flag Variables for Event Buttons and enter the default settings in the Variable "Name of event".

Attributes

Attribute	Contents
Name	Reset events
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Fire alert blinking
	Value	0
The Instruction "SetVariable"	Variable	Deflagration blinking
	Value	0
The Instruction "SetVariable"	Variable	Leakage blinking
	Value	0
The Instruction "SetVariable"	Variable	Short circuit blinking
	Value	0
The Instruction "SetVariable"	Variable	More blinking
	Value	0
The Instruction "SetVariable"	Variable	Selected message
	Value	-1
The Instruction "SetVariable"	Variable	Selected event
	Value	%%No event%%

6.5.16 The User Function: "Invoke Management"

Description

This Function launches a Management broadcast provided "1" is selected for the Variable "Management blinking".

Attributes

Attribute	Contents
Name	Invoke Management
Condition	$Management blinking$ AND ($Selected message$ UEQ -1)
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Selected broadcast
	Value	%%Management%%
The Instruction "Execute"	Execute OScAR-Pro command template	Invoke broadcast

6.5.17 The User Function: "Invoke AdminTechnics"

Description

This Function launches a broadcast for the Admin & Technics area provided "1" is selected for the Variable "AdminTech blinking".

Attributes

Attribute	Contents
Name	Invoke AdminTechnics
Condition	$AdminTech blinking$ AND ($Selected message$ UEQ -1)
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Selected broadcast
	Value	%%Admin & Technics%%
The Instruction "Execute"	Execute OScAR-Pro command template	Invoke broadcast

6.5.18 The User Function: "Invoke Production 1"

Description

This Function launches a broadcast for the Production Area 1 provided "1" is selected for the Variable
"Production 1 blinking".

Attributes

Attribute	Contents
Name	Invoke Production 1
Condition	$Production 1 blinking$ AND ($Selected message$ UEQ -1)
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Selected broadcast
	Value	%%Production 1%%
The Instruction "Execute"	Execute OScAR-Pro command template	Invoke broadcast

6.5.19 The User Function: "Invoke Production 2"

Description

This Function launches a broadcast for the Production area 2 provided "1" is selected for the Variable
"Production 2 blinking".

Attributes

Attribute	Contents
Name	Invoke Production 2
Condition	$Production 2 blinking$ AND ($Selected message$ UEQ -1)
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Selected broadcast
	Value	%%Production 2%%
The Instruction "Execute"	Execute OScAR-Pro command template	Invoke broadcast

6.5.20 On_Load Function: "Set Buttons"

Description

This Function sets the blink attributes of the Buttons in keeping with the blink states on load specified in the matching Variables.

Attributes

Attribute	Contents
Name	Set Buttons
Condition	($Fire alert blinking$ AND ($Selected message$ UEQ -1))
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Blink Buttons

6.5.21 The Functions of the Button "Fire alert"

The Functions underneath the Button "Fire alert" are automatically invoked when this Button is pressed.

6.5.21.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Fire alert blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "Call"	Function	Blink Buttons

6.5.21.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Fire alert blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "SetVariable"	Variable	Fire alert blinking
	Value	1
The Instruction "SetVariable"	Variable	Selected message
	Value	1000
The Instruction "SetVariable"	Variable	Selected event
	Value	1000:Fire alert
The Instruction "Call"	Function	Blink Buttons

Note:
Please note that at this position, the Variable "Selected message" is directly given the ID "1000". If for any reason the ID of the fire alert announcement is changed in OScAR-Pro, it must be adjusted accordingly in all related areas of the DCO-Script. For this reason, we recommend you use a Parameter (see Button "Leakage"), or at least of a Constant (see Button "Deflagration"), instead.

6.5.22 The Functions of the Button "Deflagration"

The Functions underneath the Button "Deflagration" are automatically invoked when this Button is pressed.

6.5.22.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Deflagration blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "Call"	Function	Blink Buttons

6.5.22.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	**Set**
Condition	**!$Deflagration blinking$**
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "SetVariable"	Variable	Deflagration blinking
	Value	1
The Instruction "SetVariable"	Variable	Selected message
	Value	%%Deflagration%%
The Instruction "SetVariable"	Variable	Selected event
	Value	%%Deflagration -name%%
The Instruction "Call"	Function	Blink Buttons

Note:
Here, the Variable "Selected message" is filled directly with the Constant %%Deflagration%%. If, for any reason, the ID of the Deflagration announcement changes in OScAR-Pro, the value of the Constant must be adjusted accordingly in all related areas of the DCO-Script.
For this reason we recommend you use a Parameter (see Button "Leakage"), instead

6.5.23 The Functions of the Button "Leakage"

The Functions underneath the Button "Leakage" are automatically invoked when this Button is pressed.

6.5.23.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Leakage blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "Call"	Function	Blink Buttons

6.5.23.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Leakage blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "SetVariable"	Variable	Leakage blinking
	Value	1
The Instruction "SetVariable"	Variable	Selected message
	Value	%%Leakage%%
The Instruction "SetVariable"	Variable	Selected event
	Value	%%Leakage-name%%
The Instruction "Call"	Function	Blink Buttons

Note:
Here, the Variable "Selected message" is filled directly with the parameter %%Leakage%. If, for any reason, the ID of the Deflagration announcement changes in OScAR-Pro, the value of the Parameter must be easily adjusted accordingly in the Parameter editor (see Section 7.4, "The DCO Parameter Editor") of the OScAR-Pro-TT Operator-Tool.

6.5.24 The Functions of the Button "Short circuit"

The Functions underneath the Button "Short circuit" are automatically invoked when this Button is pressed.

6.5.24.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Short circuit blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "Call"	Function	Blink Buttons

6.5.24.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Short circuit blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "SetVariable"	Variable	Short circuit blinking
	Value	1
The Instruction "SetVariable"	Variable	Selected message
	Value	%%Short circuit%%
The Instruction "SetVariable"	Variable	Selected event
	Value	%%Short circuit-name%%
The Instruction "Call"	Function	Blink Buttons

6.5.25 The Functions of the Button "More": "Open announcement selection"

Description

This Function is automatically invoked whenever this Button is pressed and opens the user window "Announcement selection".

Attributes

Attribute	Contents
Name	Open announcement selection
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Reset events
The Instruction "GotoFrame"	Frame	Announcement selection

6.5.26 The Functions of the Button "Management"

The Functions underneath the Button "Management" are automatically invoked when this Button is pressed.

6.5.26.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Management blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Management blinking
	Value	0
The Instruction "Call"	Function	Blink Buttons

6.5.26.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Management blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Management blinking
	Value	1
The Instruction "Call"	Function	Blink Buttons

6.5.27 The Functions of the Button "AdminTechnics"

The Functions underneath the Button "AdminTechnics" are automatically invoked when this Button is pressed.

6.5.27.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$AdminTech blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	AdminTech blinking
	Value	0
The Instruction "Call"	Function	Blink Buttons

6.5.27.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$AdminTech blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	AdminTech blinking
	Value	1
The Instruction "Call"	Function	Blink Buttons

6.5.28 The Functions of the Button "Production 1"

The Functions underneath the Button "Production 1" are automatically invoked when this Button is pressed.

6.5.28.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Production 1 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Production 1 blinking
	Value	0
The Instruction "Call"	Function	Blink Buttons

6.5.28.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Production 1 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Production 1 blinking
	Value	1
The Instruction "Call"	Function	Blink Buttons

6.5.29 The Functions of the Button "Production 2"

The Functions underneath the Button "Production 2" are automatically invoked when the Button is pressed.

6.5.29.1 The Function: "Delete"

Description

Use this Function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Delete
Condition	$Production 2 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Production 2 blinking
	Value	0
The Instruction "Call"	Function	Blink Buttons

6.5.29.2 The Function: "Set"

Description

Use this Function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Production 2 blinking$
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	Production 2 blinking
	Value	1
The Instruction "Call"	Function	Blink Buttons

6.5.30 The Functions of the Button "Invoke": "Invoke broadcast"

Description

This Function is automatically invoked whenever the Button "Invoke" is pressed and activates the broadcasts in keeping with the selected areas.

Attributes

Attribute	Contents
Name	Invoke broadcast
Condition	($Selected message$ UEQ -1)
Messagebox	Invoke broadcast(s)?

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	Invoke Management
The Instruction "Call"	Function	Invoke AdminTechnics
The Instruction "Call"	Function	Invoke Production 1
The Instruction "Call"	Function	Invoke Production 2
Call	Function	Reset events
Call	Function	Reset areas
Call	Function	Blink Buttons

6.6 Create the Functions of the Frame "Announcement selection"

6.6.1 The User Function: "On cancel"

Description

This Function covers the instructions that are applied if the "Ok" Button is pressed before a valid announcement was selected or in the event the "Cancel" Button is clicked.

Attributes

Attribute	Contents
Name	On cancel
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	More blinking
	Value	0
The Instruction "SetVariable"	Variable	Selected message
	Value	-1
The Instruction "GotoFrame"	Frame	Main page

6.6.2 On_Load Functions: "Fill announcement list"

Description

With the help of the Data list "Administrated emergency messages", this Function reads out the announcements administrated in OScAR-Pro and copies them into the "Announcement list".

Attributes

Attribute	Contents
Name	Fill announcement list
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "GetMessages"	Listbox	Administrated emergency messages
	Filters	Emergency message Filter
The Instruction "SetListBoxList"	Listbox	Announcement list
	Listbox	Administrated emergency messages

6.6.3 The Functions of the Button "Cancel": "Cancel dialog"

Description

This Function is automatically invoked whenever the Button is pressed and invokes the Function "On cancel".

Attributes

Attribute	Contents
Name	Cancel dialog
Condition	
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	On cancel

6.6.4 The Functions of the Button "Ok"

The Functions underneath the Button "Ok" are automatically invoked when this Button is pressed.

6.6.4.1 The Function: "With selection"

Description

This Function uses the Variable "Selected message" to save the selected announcement and jumps back to the "Main page".

Attributes

Attribute	Contents
Name	With selection
Condition	((LISTBOX)Announcement list UEQ '')
Messagebox	

Instructions

Instruction	Arguments	Contents
The Instruction "SetVariable"	Variable	More blinking
	Value	1
The Instruction "SetVariable"	Variable	Selected message
	Value	(LISTBOX)Announcement list
The Instruction "GetListBoxSelText"	Listbox	Announcement list
	Variable	Selected message
The Instruction "GotoFrame"	Frame	Main page

6.6.4.2 The Function: "Without selection"

Description

This Function detects if the Button was pressed before an announcement was marked. Whenever this occurs, the Function will ask the user in a messagebox if he really wants to cancel the dialog. If the user confirms, the system will immediately jump back to the "Main page".

Attributes

Attribute	Contents
Name	Without selection
Condition	((LISTBOX)Announcement list EQL '')
Messagebox	No selection found. Cancel?

Instructions

Instruction	Arguments	Contents
The Instruction "Call"	Function	On cancel

6.7 Test the DCO-Script

Follow the below instructions to test your DCO-Script:

No.	Task
1.	Next, click to switch to the Layout window and verify the result.
2.	Confirm the query if you want to save the project with "Yes".
3.	Now press the Button "Fire alert". The Button must start to blink and the Static element "Event name" should read: "1000:Fire alert".
4.	Press the Button "Fire alert" again. The Button should now stop blinking.
5.	Repeat steps 3 and 4 for the Buttons "Deflagration", "Leakage" and "Short circuit".
6.	Repeat steps 3 and 4 for all "Area" Buttons.
7.	During the steps 3 through 6, the "Invoke" Button may only be enabled if exactly one "Event" Button and at least one "Area" Button are blinking.
8.	Now press the Button "More". This should open the Frame "Announcement selection" and its "Announcement list" under "Controls" should already be filled with dummy values.
9.	Select an announcement and click "Ok". This will again open the "Main page" with the Button "More" blinking and the selected announcement entered under the Static element "Event name".
10.	Continue the testing until satisfied.
11.	Select one "Event" Button plus at least one "Area" Button and click the Button "Invoke". One after another, a message window should now open for each selected Area Button and contain an XML-Structure index listing both the IDs of the selected broadcast and the selected announcement.

Table 6-17 Add a background image to the Main page

7 The DCO in the OScAR-Pro-TT Operator-Tool

Overview

This chapter shows you how to load and run a DCO-Script created in the DCO-Designer in the OScAR-Pro-TT Operator-Tool.

It also explains how to use the Parameter-editor to adjust the parameters to the latest values, for example to adjust the parameters of process IDs (Broadcast IDs, Conference IDs etc.).

Please note that the information and tutorials in this chapter are based on the assumption that you are already familiar with the OScAR-Pro-TT Operator-Tool.

Contents

The chapter covers the following sections:

7.1 Publication of the DCO Script

7.2 Layout in the OScAR-Pro-TT Operator-Tool

- 7.2.1 The DCO in the child window
- 7.2.2 The DCO in the toolbar
- 7.2.3 Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool

7.3 Operation of the DCO-Window

7.4 The DCO Parameter Editor

7.5 Special registry entries for the DCO

7.1 Publication of the DCO Script

After a project has been completed in the DCO-Designer, you need to "publish" the corresponding DCO-Script.

To do so simply copy the project file:

- directly onto the PC that is used to run the OScAR-Pro-TT Operator-Tool or
- onto a network drive for which the OScAR-Pro-TT Operator-Tool-PC has complete read and write permissions.

Note:
As you publish your DCO-Script, please be careful to copy not only the '.dco' files and the '.ini' file, but also the corresponding subdirectory with the title "images" and all the graphic data files contained therein.

7.2 Layout in the OScAR-Pro-TT Operator-Tool

In the OScAR-Pro-TT Operator-Tool, the DCO-Script is executed like an individual program and follows the defined processes and instructions.

Every DCO-Script that has been created and tested in the DCO-Designer is executed in the OScAR-Pro-TT Operator-Tool in a special window, the so-called DCO-Window.

DCO-Scripts can be executed in two different versions (see Section 7.2.3, "Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool"):

- in a child window or
- in a toolbar.

Each OScAR-Pro-TT Operator-Tool workstation can operate a separate and, if needed, customized DCO-Script. This enables you to set up multiple workstations and assign specific and distinctive interfaces to each one.

7.2.1 The DCO in the child window

If the DCO-Script is executed in a child window, it automatically shares the so-called workspace with the other windows of the OScAR-Pro-TT Operator-Tool, namely:

- the Admin window of the OScAR-Pro-TT Operator-Tool,
- all Broadcast Process windows and
- all Conference Process windows.

Please note that the Process windows and the Admin window may cover the DCO-Window in full or in in part. Vice versa, Process windows can also be covered by the DCO-Window. Under some circumstances this may entail that the activation of a new process in the background goes unnoticed by and therefore escapes the attention of the OScAR-Pro-TT Operator-Tool user.

If the DCO-Window is in the background, you can bring it to the top quickly by clicking the button in the toolbar of the OScAR-Pro-TT Operator-Tool.

The main advantage of using the DCO-Window in a child window lies in the fact that this mode of operation does not minimize the workspace. As a result it leaves more room for the DCO-Script frames and for the monitoring and supervision of the various processes.

7.2.2 The DCO in the toolbar

If the DCO-Script is executed in a toolbar, the DCO-Window is automatically and at all times visible on top and cannot be covered by any child window.

In the same way, no other child windows can be covered by the DCO-Window.

Here, however, the workspace of the OScAR-Pro-TT Operator-Tool is qualified as follows:

- If the the toolbar is not connected:
  No qualification; the toolbar floats over the OScAR-Pro-TT Operator-Tool.
- If the toolbar is connected on the left or on the right:
  The width of the workspace is qualified by the width that is currently defined for the toolbar.
- If the toolbar is connected at the top or bottom:
  The height of the workspace is qualified by the height that is currently defined for the toolbar.

The primary advantage of using the DCO-Window in form of a toolbar is that no other window can overlap it.

If not connected, the DCO-Window can also be moved to a second screen.

As a result of the fact that toolbars operate in a menu-free context, the DCO-Window has in this case no menu of its own in the menu bar of the OScAR-Pro-TT Operator-Tool. Instead, you can open the "DCO" drop-down menu (see Section 7.3, "Operation of the DCO-Window") with a right mouse click.

7.2.3 Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool

The table below lists the menu items of the OScAR-Pro-TT Operator-Tool that are automatically enhanced if DCO is enabled on the chip card of the OScAR-Pro-Server.

Menu item	**Description**
Pull down menu "*Window*":	
OScAR-Pro-Customized-Op-era-tor.. `Ctrl+SHIFT+F4` 	Opens a DCO-Script for output and execution.
All other entries	See OScAR-Pro-TT User Manual Version 6.12 and ff.

Table 7-1 Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool

7.3 Operation of the DCO-Window

This section covers the general operation elements of the DCO-Window.

The menu bar and buttons

The below table lists in detail the different menu items of the DCO-Window in the OScAR-Pro-TT Operator-Tool, including their pertinent keyboard shortcuts and symbols.

Menu item	**Description**
Pull down menu "*Application*"	
All entries	See OScAR-Pro-TT User Manual Version 6.12 and ff.
Pull down menu "*Operations*"	
All entries	See OScAR-Pro-TT User Manual Version 6.12 and ff.
Pull down menu "*DCO*"	
Loading DCO-Script .. `Ctrl+L`	Opens a window to select an existing DCO-Script (.dco-file).
Open DCO-Parameter-Editor ..	Opens a window to edit the parameters of the DCO-Script that is currently loaded.
Load DCO at program start	Defines if the current DCO-Script is started automatically at the start of the OScAR-Pro-TT Operator-Tool (box ticked) or not (box not ticked).
Show DCO as toolbar	Defines if the current DCO-Window is output in a toolbar (box ticked) or not (box not ticked).
Pull down menu "*Window*"	
Standard view 	Moves the DCO-Window to the background and brings the standard Admin window of the OScAR-Pro-TT Operator-Tool to the top.
Other entries	See OScAR-Pro-TT User Manual Version 6.12 and ff.
Pull down menu "*?*"	
All entries	See OScAR-Pro-TT User Manual Version 6.12 and ff.

Table 7-2 Summary of the menu items and buttons of the DCO-Window

Note
In either of the above-mentioned output versions, you can access the pull down menu "DCO" easily by making a right mouse click in the empty area of the DCO-Window.
Please bear in mind that the menu commands in this pull down menu are only enabled for users who have full administrative right to "Set up OScAR-Pro Custom. Operator".

7.3.1 Load a DCO-Scripts for the first time in the OScAR-Pro-TT Operator-Tool

When it first started, the OScAR-Pro-TT Operator-Tool has neither a DCO-Script set-up for it, nor is the DCO-Window visible.

Follow the below instructions to open the DCO-Window and create a DCO-Script:

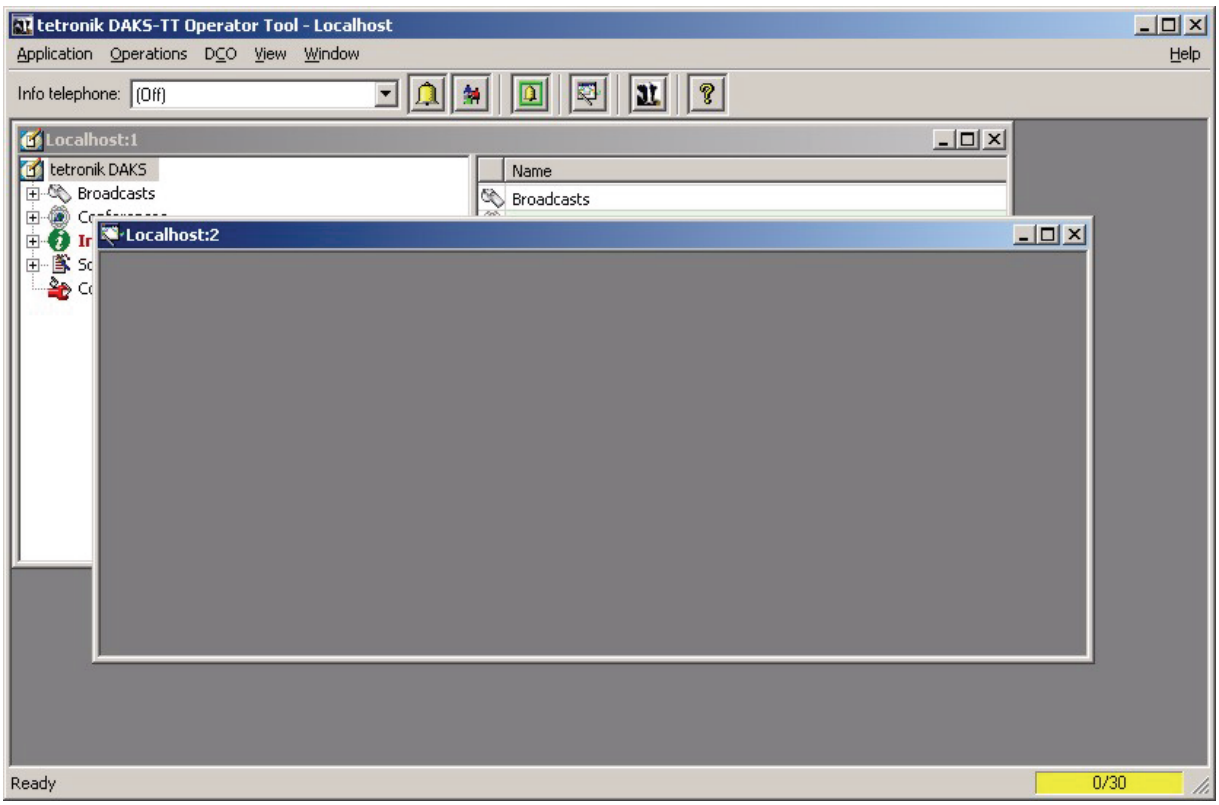
No.	Task
1.	Start the OScAR-Pro-TT Operator-Tool (see the OScAR-Pro-TT User Manual).
2.	Go to the menu bar and click "Window→OScAR-Pro Customized Operator..." and use the keyboard shortcut Ctrl+SHIFT+F4 or click in the toolbar.
3.	The DCO-Window is opened in form of a child window: 
4.	In this window, select the menu item "Custom-Operator→load DCO-Script ...". This will open a user window to select a file.
5.	Select the DCO-Script (.dco-file) you want to open and close the window with **Ok**.

Table 7-3 Initial loading of a DCO-Script in the OScAR-Pro-TT Operator-Tool

No.	Task
6.	If needed, adjust the parameters of the DCO-Script with the Parameter Editor (see „The DCO Parameter Editor“).

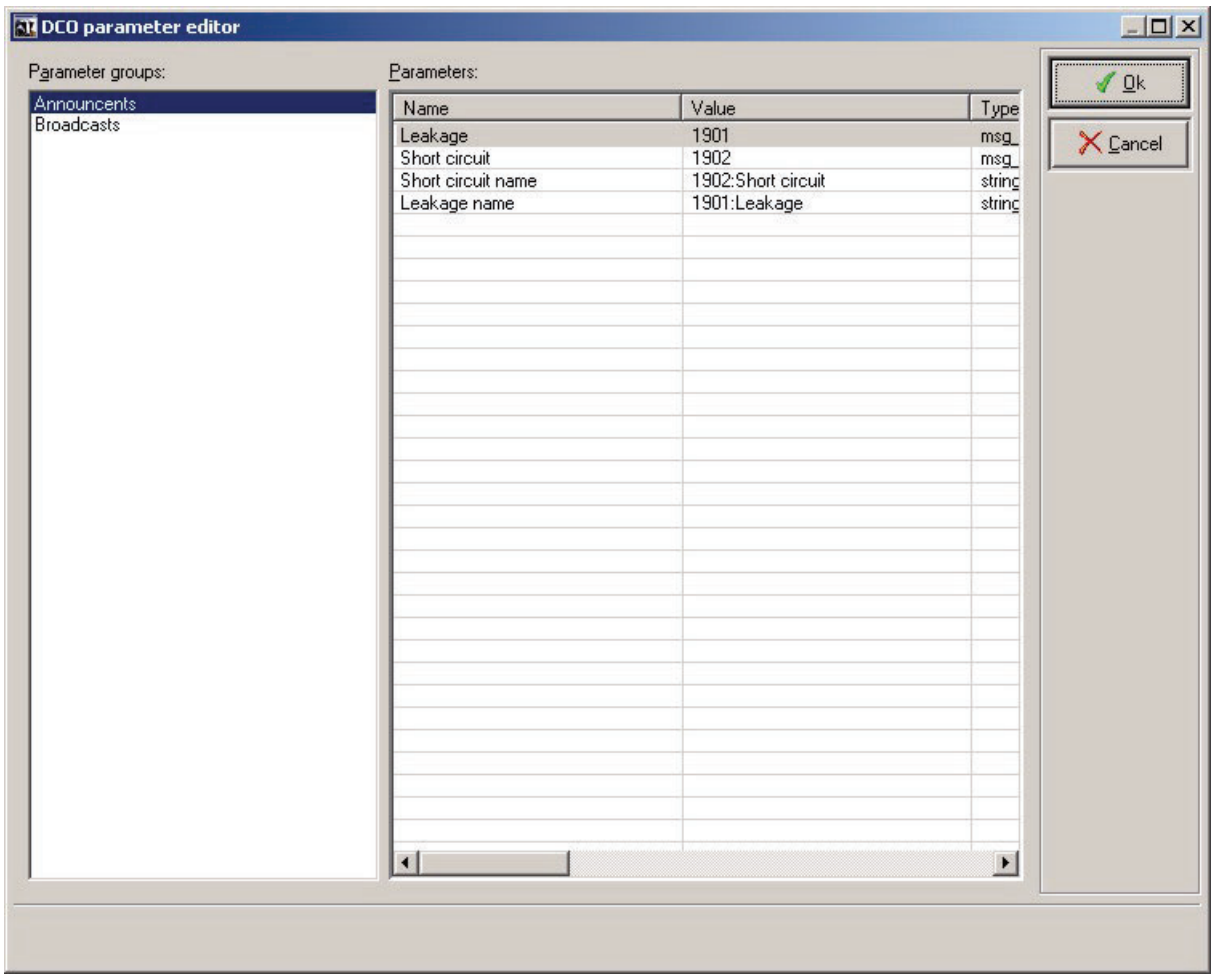
Table 7-3 Initial loading of a DCO-Script in the OScAR-Pro-TT Operator-Tool

Note:
If you create a DCO-Script in the above-mentioned way in theOScAR-Pro-TT Operator-Tool , it will automatically be loaded whenever the DCO-Window is opened. The project properties of the DCO-Script specify the Frame with which the operation starts (see „Edit project properties“).

7.4 The DCO Parameter Editor

Use the Parameter Editor to make local adjustments to the parameters of the DCO-Script, e.g. to the IDs or colors.

Description of the window "DCO parameter editor"

Edit field	Description
	
Parameter group	Combobox to select the parent parameter group of the parameter you want to edit.
Parameters	Combobox listing all parameters created. To edit the values of one of these parameters simply make a double click on it.

Summary of the fields in the window "DCO parameter editor"

7.5 Special registry entries for the DCO

The below table covers the entries that are created in the OScAR-Pro-TT Operator-ToolWindows Registry of the whenever the DCO is used:

Entry	Description
HKEY_CURRENT_USER\Software\tetronik GmbH AEN\tetronik OScAR-Pro-TT Operator-Tool\Set-tings	
LastGUIOpened	Entry of the type **REG_SZ** that is used to store the path of the currently assigned DCO-Script.
LastGUIReOpen	Entry of the type **REG_DWORD** that is used to store the information if the DCO-Script is automatically loaded at the program start, yes (**1**) or no (**0**).
GUIBar	Entry of t he type **REG_DWORD** that is used store the information if the DCO-Script is shown as a docking window (**1**) or as a child window (**0**).

Table 7-4 DCO registry entries in the OScAR-Pro-TT Operator-Tool

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